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CATALOGUE

OF

PHANEROPNEUMONA,

OR

TERRESTRIAL OPERCULATED MOLLUSCA,

IN

THE COLLECTION

OF THE

BRITISH MUSEUM.

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INTRODUCTION.

THE principal object of the present Catalogue has been to give a complete list of the Terrestrial Operculated Mollusca, with descriptions of all the genera and species known to exist; indicating at the same time those contained in the British Museum Collection.

This Catalogue has been prepared by Dr. L. PFEIFFER, of Cassel, so well known for his attention to the Terrestrial Mollusca.

JOHN EDWARD GRAY.

16*th September*, 1852.

CATALOGUE

OF

PHANEROPNEUMONA.

The Mantle, free from the nape, leaving the pulmonary cavity open. Animal unisexual. Operculum distinct, spiral, or annulated.

Phaneropneumona, *Gray*, *Lond. Med. Repos.* 1821 ; *Herrm. Ind.* ii. 243.
Pulmonata operculata, *Ferussac*, *Tabl. Syst.* 23, 1821.
Pneumopoma, or Pneumonopoma, *Latr. Fam. Nat.* 1825.
Cochlea operculata (part), *Flem. Brit. Anim.* 287, 1828.
Cœlopneumata operculata, *Menke*, *Syn.* 22, 1828.
Cœlopnoa operculata, *Menke*, *Syn.* ed. 2, 39, 1830.
Helicinea, *Deshayes*, *Ency. Meth.* iii. 552.
Pulmonata operculata, *Wiegmann*, *Handb. Zool.* 527, 1832.
Cyclostomacea (part), *Anton*, *Verz.* 52, 1839 ; *Reeve*, *Conch. Syst.* ii. 90, 1842 ; *Jay's Catal.* 251, 1850.
Pseudobranchiata, or Teleogeophila, *Hartmann*, *Syst.* 1840.
Pneumobranchiata operculata, *Gray*, *Syn. B. M.* 1840 ; *in Turton*, *Man.* 273, 1840.
Pulmonata operculata (part), *Troschel*, *in Wiegm. Arch.* 1845, 210.
Cyclostomidæ, *Troschel*, *in Wiegm. Arch.* 1845, 210.
Autrobranchia, *Leach*, *Brit. Moll.* 202 (1820), 1852.
Pectinibranchiata dioica, *D'Orbigny*, *Moll. Cuba*, i. 199, 236.

Pneumonopoma, or Pneumopoma, are Mollusca, which live on the land and breathe the external air by lung-like organs, and which are provided with an organic operculum, which is affixed to the foot of the animal and closes the shell, when the animal has retracted itself.

The Mollusca of this order show a structure which is very similar in the whole group, and by which they may be easily distinguished from the other terrestrian Mollusca (Limacidæ, Helicidæ, Auriculidæ). They are divided into two sexes (never hermaphrodite, as Helicidæ), and provided with two contractile tentacles, with the eyes on the posterior or outer side of their base. The mantle has sometimes a free edge, sometimes it is affixed and concealed in the shell, a character by which Ferussac has distinguished his families of Helicinæ and Turbicina.

This order of Mollusca was first proposed by Dr. Gray, in his Essay on the Arrangement of Mollusca (*Medical Repository*, 1821), as the second order of the Pneumobranchiata to include the genera Cyclostoma and Helicina. M. Ferussac, in the same year, 1821 (*Tabl. Syst.* p. xxxiii.), established it as the fifth order of Gasteropoda, under the name of *Pulmonata operculata;* and proposed to unite the two genera, Helicina and Cyclostoma, the very close natural affinity of which had been overlooked by all preceding writers, not excepting Cuvier and Lamarck. Each of these genera constitutes the type of a distinct family, Helicinæ and Turbicina.

Latreille, 1825 (*Fam. Nat.*), has imposed the name of *Pneumopoma* to the first order of diœcious Gasteropoda, which he divided, like Ferussac, into the families of Helicinidæ and Turbicina.

The same order was designated, 1828, by Menke (*Syn.* p. 22) with the name of *Cœlopneumonata operculata.* He considers it as the sixth order of Gasteropoda, and divides it into the families Helicinaceæ and Cyclostomiatæ. In the second edition (1830, p. 39) he changes the name of the order into Cœlopnoa operculata, and that of the families into Helicinacea and Cyclostomacea.

Deshayes (1830, *Encycl. Meth.* iii. p. 552, *Tabl.*) proposed the name *Helicinea* for the third family of Pulmobranchiata, comprising the generas Cyclostoma, Strophostoma, and Helicina.

Wiegmann (1832, *Handb. d. Zool.* p. 527) has designated the same order with the name of *Pulmonata operculata.* Its genera are Cyclostoma, Helicina, Steganotoma, and Pupina.

Anton (1839, *Verzeichn.* p. xiii. 52) designates with the name of Cyclostomacea, a family, comprising Cyclostoma, Helicina, and Littorina.

Hartmann (1840, *Erd u. Sussw. Gast. Syst. Uebers.*) unites under the name of *Pseudobranchiata*, or *Teleogeophila*, the European genera, Choristoma, Pomatias, and Cyclostoma, omitting Helicina as a tropical genus.

The *Pneumonobranchiata operculata* of Gray (1840, *Turt. Man.* ed. alt. p. 273) is intended to include the Helicinidæ.

D'Orbigny (1841, *Moll. Cuba*, i. p. 199, 236) admits in the first family of diœcious Pectinibranchiata the division Cyclostomidæ, comprising the genera Odontostoma, Helicina, Cyclostoma, and Strophostoma.

The same order has been designated with the name of *Cyclostomacea* by Reeve (1842, *Conch. Syst.* ii. p. 90), and by A. Catlow (1845, *Conch. Nom.* p. 168). Its genera are Pupina, Cyclostoma, Helicina, and Truncatella.

Sismonda (1842, *Syn. an. inv.* p. 27) unites the genera Cyclostoma and Helicina in the same section of Gasteropoda, named *Cyclostomata.*

Jay (1850, *Catal.* p. 251) admits Reeve's family of *Cyclostomacea* with the genera *Pupina*, *Truncatella*, *Cyclostoma*, *Geomelanea*, *Helicina*, and *Stoastoma.*

Gray, in the text to Mrs. Gray's Figures of Mollusca, iv. p. 120, divides the suborder into three families, viz., 1, *Cyclophoridæ;* 2, *Olygyradæ;* 3, *Aciculadæ.*

The suborder Phaneropneumona may be divided, with respect to the external structure of the animals, namely, by the position of the eyes at the base of the tentacles, into two sections, 1, *Ectophthalma;* and 2, *Ophisophthalma.*

Sect. I. ECTOPHTHALMA.

Eyes on the side of the head, at the outer base of the tentacula. Foot rather elongate. Operculum horny or shelly, distinctly spiral or annulated, not spiral.

By this last character the two families may be distinguished, Helicinidæ and Cyclophoridæ. (*Pfr. Pneum. Monogr.* p. 14.)

Fam. I. CYCLOPHORIDÆ.

Operculum distinctly spiral, shelly, cartilaginous or horny, with very numerous, nearly equal, or with a few rapidly-enlarging whorls.

Turbicina, *Ferussac*, 1821, *Tabl. Syst.* p. xxxiii.; *Latreille*, 1825, *Fam. Nat.; Rang*, 1829, *Manuel*, p. 179; *Potier et Mich.* 1838, *Galérie de Douai*, i. p. 232; *Herrmannsen*, 1847, *Ind. Gen. Malac.* ii. p. 636.

Cyclostomadæ, *Risso*, 1826, *Hist.* iv. p. 103.

Cyclostomiatæ, *Menke*, 1828, *Synops.* p. 22.

Cyclostomacea, *Menke*, 1830, *Synops.* ed. alt. p. 32; *Pfr.* 1841, *Symb. Helic.* i. p. 4; *Chemn.* ed. alt. i. 19, p. 7; *Z.* f. *M.* p. 101; 1851, *Ibid.* p. 129; *Consp.* p. 1; *Pneum. Mon.* p. 14.

Cyclostomoidea, *Fitzinger*, 1833, *Syst. Verzeichn.* p. 115.

Cyclostomidæ, *Gray*, 1840, *in Turt. Man.* ed. sec. p. 102, 273; *Syn. Brit. Mus.* 1842, p. 91; *Troschel*, 1847, *Z.* f. *M.* p. 42.

Cyclostomina, *Milne Edwards*, 1841, *Elem. Zool.*

Cyclostomoidæ, *Agassiz*, 1847, *Nom. Zool. Ind. Univ.*
Cyclophoridæ, *Gray*, 1847, *Proc. Zool. Soc.* p. 181; 1850, *Catal. Cycloph.* p. 5; *Pfeiffer Pneum.*

The genus Cyclostoma of Lamarck was for a long time the only one constituting this family, till, by a more accurate knowledge of many new species, and of their very different opercula, it became necessary to separate from the original genus several distinct types, increasing gradually to the number of thirty genera (including a fossil one).

In 1840, Dr. Gray (*Synopsis, Brit. Mus.* 133) formed the genus into a family, *Cyclostomidæ*, and divides them into genera thus:—

"In the *Cyclostoma*, which have a shell operculum, and simple mouth to the shell, the foot of the animal is divided into two equal parts by a longitudinal groove, and the animal walks by alternately moving forward first one and then the other of these sides. In *Cyclophorus Pterocyclos*, and *Megalomastoma*, which have a horny many-whorled operculum, the foot is simple, and the animal glides along like the other Gasteropodes. Some of these, as *Pterocyclos*, have a more or less developed groove or hole at the hinder angle of the mouth, evidently formed by some periodically-developed process of the edge of the mantle. In others, as *Megalomastoma*, there is a permanent appendage to the mantle, which produces a groove and ridge in the front of the mouth near the pillar; and in *Pupina*, which has been confounded with *Buccina*, the groove ends in a narrow-edged marginal notch. The *Calliæ* have a peculiar polished shell, very like the former, but they want the groove. The fossil genus, *Strophostoma*, is peculiar for the animal, when it is approaching to its adult state, suddenly reversing the position of its body, so that the mouth of the shell is placed on a plane with the surface of the spire, as in the genus *Anostoma*, among the *Helices*. The *Pomatias* have an elongated shell, with reflexed lips, and a horny oval operculum."

Then follows this list of genera, in which the specimens were arranged in the Museum collection:—

A. 1, *Cyclostoma;* 2, *Licina;* 3, *Poteria;* 4, *Leonia.* B. 5, *Annularia;* 6, *Bolania;* 7, *Cyclotus;* 8, *Pterocyclos;* 9, *Strophostoma.* C. 10, *Realia;* 11, *Megalomastoma.* D. 12, *Callia.* E. 13, *Pupina;* 14, *Registoma.* F. 15, *Pomatias.*

In 1840, Mr. Swainson (*Malaccology*, ii. 336) divided the genus Cyclostoma into four subgenera, with the following types:—

1, *Cyclophora, Montf.* (C. volvula); 2, *Cyclostoma, Cabio;* 3, *Cyclotus, Guild* (planorbulata); 4, *Megalomastoma, Guild* (flavula).

In 1847, Dr. Troschel (*Zeitsch. f. Malak.* 44) proposed to divide the family into the following genera:—

1, *Cyclostoma;* 2, *Pomatias;* 3, *Aulopoma* (Hofmeisteri) ; 4, *Aperostoma* (volvulus) ; 5, *Tropidophora* (Cuvieranum) ; 6, *Farcimen* (flavulum) ; 7, *Myxostoma* (Petiverianum) ; 8, *Pterocyclos Steganostoma.*

Dr. Pfeiffer, in the same volume, p. 47, proposes to add to these, 1, *Leptopoma ;* 2, *Choanopoma ;* 3, *Craspedopoma ;* and at p. 104, gives a list of the specimens of the family, arranged under the genera which had then been established.

In 1848, M. L. Partiot (*Mém. sur les Cyclostomes, Toulouse,* 8vo), divides the family thus, with the types :—

1, *Acme* (fusca) ; 2, *Pomatias ;* 3, *Ericia* (aurantium) ; 4, *Gastrodonia* (fimbriatulum) ; 5, *Cyclophorus ;* 6, *Annularia ;* 7, *Steganostoma.* Characterized by the form of the shell, they consist of most incongruous species.

In 1850, Dr. Gray (*List of Cyclophoridæ, in Brit. Mus.*) divides the family thus :—

A. Operculum orbicular, often concave externally, of many very gradually-enlarging whorls ; nucleus central.

a. Operculum thick, formed of two lamina, with a groove on the edge between them ; the outer layer calcareous, usually furnished with a raised border in the outer edge, forming a spiral ridge or fringe. 1, *Cyclotus* (Poteria) ; 2, *Pterocyclos ;* 3, *Craspedopoma* (Bolania).

b. Operculum horny, thin, without any external calcareous layer. Shell conical, or depressed ; last whorl rounded, without any groove or ridge round the front of the axis. 4, *Aulopoma ;* 5, *Myxostoma ;* 6, *Cyclophorus ;* 7, *Leptopoma ;* 8, *Alycæus.*

c. Operculum horny, thin, many-whorled. Shell oblong, elongate, last whorl with a fold or spiral ridge on the inner side, in front of the axis, sometimes forming a groove in the outer lip. 9, *Farcimen ;* 10, *Electrina ;* 11, *Megalomastoma ;* 12, *Registoma ;* 13, *Pupina ;* 14, *Pupinella ;* 15, *Callia.*

B. Operculum ovate, of a few more or less rapidly-enlarging whorls ; nucleus eccentric.

a. Operculum thick, with an externally shelly coat. 16, *Leonia ;* 17, *Lithidion ;* 18, *Otopoma ;* 19, *Trochidophora ;* 20, *Cyclostomus ;* 21, *Tudora ;* 22, *Choanopoma ;* 23, *Diplommatina ;* 24, *Chondropoma ;* 25, *Cistula ;* 26, *Licina.*

b. Operculum thin, few whorls, front of last whorl rounded. 27, *Pomatias ;* 28, *Realia ;* 29, *Ferussina.*

1851, Dr. Pfeiffer, in his *Conspectus Cyclostomaceorum,* divides the family thus :—

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I. Operculum circular, often externally concave, formed of many slowly-enlarging whorls; nucleus central.

a. Operculum testaceous. 1, *Cyclotus;* 2, *Alycæus;* 3, *Diplommatina.*

b. Operculum cartilaginous. 4, *Pterocyclos.*

c. Operculum horny. 5, *Craspedopoma;* 6, *Aulopoma;* 7, *Cyclophorus;* 8, *Leptopoma;* 9, *Megalomastoma;* 10, *Cataulus;* 11, *Pupinella;* 12, *Pupina;* 13, *Registoma;* 14, *Callia.*

II. Operculum subcircular; whorls few, gradually increasing; nucleus subcentral.

a. Operculum testaceous. 15, *Jamaicia;* 16, *Licina;* 17, *Choanopoma.*

b. Operculum cartilaginous. 18, *Adamsiella.*

III. Operculum oval, or angular; whorls few, more or less rapidly enlarging; nucleus eccentric.

a. Operculum testaceous. 19, *Lithidion;* 20, *Otopoma;* 21, *Cyclostomus;* 22, *Tudora;* 23, *Leonia.*

b. Operculum cartilaginous, covered externally with a thin shelly layer. 24, *Cistula.*

c. Operculum simply cartilaginous. 25, *Chondropoma.*

d. Operculum double, acuminated within. 26, *Pomatias.*

e. Operculum horny. 27, *Realia;* 28, *Omphalotropis;* 29, *Bourcieria.*

A. *Operculum orbicular, often concave externally, of many very gradually-enlarging whorls, nucleus central.*

a. Operculum thick, formed of two lamina, with a groove on the edge between them, the interior horny, the outer layer calcareous, the whorls usually furnished with a raised border on the outer edge, forming a spiral ridge or fringe. Cyclotina, *Gray.*

1. CYCLOTUS.

Operculum thick, testaceous, outer surface rather concave; whorls numerous; very gradually enlarging, furnished with a thickened or raised border on the outer edge. Shell subturbinate, depressed, or discoidal; peristome continued or joined by a callous margin, simple or double, straight or reflexed.

Cyclotus, *Guild, in Swains. Malac.* p. 186, 336; *Gray, Syn. Br. Mus.* ed. 1842, p. 91; *Proc. Zool. Soc.* 1847, p. 182; *Catal. Cycloph.* p. 5; *Herrm. Ind. Gen. Mal.* i. p. 350; *Pfr. in Z.* f. *M.* 1851, p. 132; *Consp.* p. 4; *Pneum. Mon.* p. 16.

Aperostoma (part), *Trosch. in Zeitschr.* f. *Mal.* 1847, p. 44.

Aperostoma, *Pfr. in Zeitschr.* f. *Mal.* 1847, p. 47, 104.
Cyclostoma (spec.), *Gray, Sowerby, etc.*

I. Peristome simple,
a. Straight . . . . . § 1. *n.* 1–25
b. Expanded . . . . . § 2. „ 26–33
II. Peristome double . . . . § 3. „ 34–44

§ 1. *Peristome simple, straight.*

1. Cyclotus giganteus. B. M.

Shell rather depressed, solid, with crowded rugose striæ; white, with an epidermis of fulvous colour, fading off in bands; spire short, rather acuminate, reddish; whorls 5½ convex, rapidly increasing, the last one marked with an impressed line near the suture, a little deflexed anteriorly, more convex and more finely striated beneath; umbilicus broad; aperture large, obliquely ovate, white, shining; peristome straightly blunt, the margins angularly joined by a white callus, the right margin sinuous. Operculum whitish, of 10–11 whorls. Height 22 millimeters, greatest breadth 50 mill., least breadth 38 mill.

Cyclostoma giganteum, *Gray, MSS. in Brit. Mus.; Sow. in Proc. Zool. Soc.* 1843, p. 30; *Spec. Conch.* f. 9, 10; *Thes.* p. 92, n. 5, t. 23, f. 8, 9; *Reeve, Conch. Syst.* ii. t. 184, f. 17; *Pfr. Ic.* p. 11, n. 2, t. 1, f. 11–14.
Cyclostoma Cumingii? *Jay, Catal.* 1839, p. 122, t. 7, f. 4, 5.
Aperostoma giganteum, *Pfr. in Z.* f. *M.* 1847, p. 104.
Cyclotus giganteus, *Gray, Cat. Cycl.* p. 6; *Pfr. Consp.* n. 1; *Mon.* p. 16.

Hab. W. Columbia, Salanga; St. Elena.

2. Cyclotus Quitensis.

Shell depressed, solid; upper side finely striated, shining, of a dark chestnut; spire short, conoidally elevated; suture deep; whorls 4½, convex, rapidly increasing, the last one depressed near the suture, wrinkled, with a narrow whitish girdle and a broad blackish band at the periphery, brownish-green beneath, with crowded radiating folds round the funnel-shaped umbilicus; aperture a little oblique, irregularly ovate, expanded to the right side, livid; peristome straight, a little thickened, continued; the margins angularly joined above; the left margin shortly appressed on the penult whorl. Operculum typical. Height 15 mill., greatest breadth 37, least br. 27 mill.

Cyclostoma Quitense, *Pfr. in Proc. Zool. Soc.* 1851; *Icon.* n. 355, t. 44, f. 19–22.
Cyclotus Quitensis, *Pfr. Consp.* n. 2, p. 50; *Mon.* p. 17.

Hab. Quito.

3. Cyclotus cingulatus.

Shell depressed, rather thick, olivaceous-chestnut-coloured, covered all over with irregular granulate wrinkles; spire very short, rather blunt; whorls $4\frac{1}{2}$, moderately convex, rapidly increasing, the last one descending anteriorly, obtusely carinate at the periphery, with a broad blackish band beneath the keel; umbilicus moderately large; aperture nearly circular, scarcely angulate above, blueish inside; peristome simple, straight, continued; the right margin semicircular; the left margin a little thickened, slightly arcuate. Operculum typical. Height, 19 mill., greatest breadth 35, least br. 27 mill.

Cyclostoma cingulatum, *Sow. Thes.* p. 93, n. 9, t. 29, f. 213, 214; *Pfr. Ic.* p. 163, n. 176, t. 22, f. 20–22.
Aperostoma cingulatum, *Pfr. in Z.* f. *M.* 1847; p. 104.
Cyclotus cingulatus, *Gray, Catal. Cycl.* p. 6; *Pfr. Consp.* n. 3; *Mon.* p. 18.

Hab. New Granada (Powis), Columbia.

4. Cyclotus laxatus.

Shell depressed, nearly discoidal, with an ear-shaped periphery, with crowded ribline striæ and oblique impressed wrinkles; colour fulvous-chestnut; spire scarcely raised, with a red, blunt apex; whorls $4\frac{1}{2}$, convex, rapidly increasing, the last one dilated anteriorly, slightly keeled at the periphery, with one band of blackish chestnut, more strongly folded and more minutely wrinkled beneath; umbilicus very large; aperture oblique, transversely subovate, inside pearl-grayish; peristome simple, straight, continued, shortly affixed. Operc.? Height, 13 mill., greatest breadth 36, least br. 27 mill.

Cyclostoma laxatum, *Sow. Thes. Suppl.* p. 159*, n. 181, t. 31, *A.* f. 302; *Pfr. Ic.* n. 245, t. 35, f. 3, 4.
Cyclotus laxatus, *Pfr. Consp.* n. 4; *Mon.* p. 18.

Hab. Columbia.

5. Cyclotus inca. B. M.

Shell depressed, rather solid, with crowded fold-like striæ; greenish-horn coloured, with one broad chestnut-coloured band beneath the periphery; spire scarcely raised; apex generally red; whorls $4\frac{1}{2}$, convex, rapidly increasing, the last one nearly cylindrical, scarcely descending anteriorly; umbilicus broad; aperture a little oblique, ovate-rounded, inside pearl-grayish; peristome simple, straight, continued, shortly affixed to the penult whorl; the columellar margin regularly arcuate, rather thickened. Operculum typical, with about eight whorls. Height 13 mill., greatest breadth 27, least br. 22 mill.

Cyclostoma Inca, *Orb. Syn.* p. 29, n. 2 ; *Voy. Amér.* p. 361, t. 16, f. 21–23 ; *Sow. Thes.* p. 92, n. 6, t. 24, f. 71, 72 ; *Pfr. Ic.* p. 12, n. 3, t. 1, f. 5–7.
Cyclostoma blanchetiana, *Moric. in Mém. Genève*, vii. p. 442, t. 2, f. 21–23 ; *Pot. & Mich. Gal. Douai*, i. p. 233, t. 23, f. 21, 22 ; *Desh. in Lam. Hist.* viii. p. 366 ; n. 29.
Cyclostoma Colombiensis, *Fer. Mus. fide, Orb.*
Cyclostoma nobile, *Fer. Mus. fide, Pot. & Mich.*
Aperostoma Inca, *Pfr. in Z. f. M.* 1847, p. 104.
Cyclotus Inca, *Gray, Cat. Cycl.* p. 6 ; *Pfr. Consp.* n. 5 ; *Mon.* p. 19.

Hab. Bolivia, Brasilia, and La Guayra.

6. Cyclotus stramineus.

Shell depressed, nearly discoidal, thin, diaphanous, uniformly yellowish, with fine, crowded, oblique, fold-like striæ, rising diagonally forward from the umbilicus, which is rather broad and open ; spire scarcely raised, with a fine, obtuse, prominent apex ; whorls 4½, convex, finely wrinkled near the suture, last whorl a little depressed ; aperture nearly circular, scarcely angulate above ; peristome straight, rather thickened ; its margins angularly joined by a thin callus. Operculum typical. Height 12, greatest breadth 25, least br. 19 mill.

Cyclostoma stramineum, *Reeve, in Proc. Z. S.* 1843, p. 46 ; *Sow. Thes.* p. 93, n. 8, t. 29, f. 211, 212 ; *Pfr. Ic.* p. 94, n. 90, t. 12, f. 6, 7, t. 35, f. 7–9.
Aperostoma stramineum, *Pfr. in Z. f. M.* 1847, p. 104.
Cyclotus stramineus, *Gray, Cat. Cycl.* p. 7, n. 6 ; *Pfr. Consp.* n. 6 ; *Mon.* p. 20.

Hab. W. Columbia, Merida (Reeve) ; La Guayra (Dr. Tams).

Compare Cyclophorus ponderosus, texturatus et Dysoni, which are, when destitute of their opercula, very similar to C. stramineus.

7. Cyclotus translucidus. B. M.

Shell turbinate-globular, rather thin, with crowded fold-like striæ ; whitish, translucent, with a greenish horn-coloured epidermis ; spire short, conoidal ; whorls 5, convex, the last one ventrose ; umbilicus narrow, open ; aperture obliquely ovate, pearl-grayish ; peristome simple, straight, sharp ; its margins angularly joined ; columellar margin a little effused. Operculum with 7 whorls, of which the outer one is much broader. Height 15, greatest breadth 23, least br. 19 mill.

Cyclostoma translucidum, *Sow. in Proc. Z. S.* 1843, p. 29 ; *Thes.* p. 106, n. 46, t. 23, f. 4 ; *Pfr. Ic.* p. 13, n. 4, t. 2, f. 8–10.
Aperostoma translucidum, *Pfr. in Z. f. M.* 1847, p. 104.

Cyclotus translucidus, *Gray, Cat. Cycl.* p. 10, n. 22; *Pfr. Consp.* n. 7; *Mon.* p. 20.

Hab. Columbia.

8. Cyclotus asperulus. B. M.

Shell orbicular, rather depressed, thin, all over slightly granulated with crowded impressed points, whitish, with a yellowish epidermis; spire little raised, with a rather blunt apex; whorls 4, rapidly increasing, convex, the last one obsoletely angulate, anteriorly dilate, not compressed round the umbilicus, which is rather large; aperture a little oblique, nearly circular, angulate above, shining inside; peristome simple, continued, straight; its left margin rather thickened in the middle, appressed above. Operculum with 6 whorls; the margins of which are scarcely raised. Height 10, greatest breadth 18, least br. 14 mill.

Cyclostoma rugulosum, *Sow. in Proc. Z. S.* 1843, p. 29, not *Pfr.*
Cyclostoma asperulum, *Sow. Thes.* p. 91, n. 2, t. 23, f. 3; *Pfr. Ic.* p. 148, n. 158, t. 20, f. 16, 17.
Aperostoma asperulum, *Pfr. in Z.* f. *M.* 1847, p. 104.
Cyclotus asperulus, *Gray, Cat. Cycl.* p. 10, n. 24; *Pfr. Consp.* n. 8; *Mon.* p. 21.

Hab. Jamaica.

9. Cyclotus popayanus. B. M.

Shell turbinate-depressed, rather thin, with irregular wrinkled striæ, whitish, with a greenish-fuscous epidermis, which is marked with more saturate stripes and one whitish band; spire depressed-conoidal, with the apex papillate; whorls $4\frac{1}{2}$–5, convex, rapidly increasing, the last one cylindrical, a little descending anteriorly; umbilicus rather large, deep; aperture scarcely oblique, roundish-ovate, angulate above, inside pearl-coloured; peristome continued, straight, shortly affixed above; its columellar margin rather thickened. Operculum typical. Height 12–15, greatest breadth 23–29, least br. 19–24 mill.

Cyclostoma Popayana, *Lea, Observ.* ii. p. 94, t. 23, f. 76.
Cyclostoma Popayanum, *Pfr. Ic.* p. 55, n. 48, t. 7, f. 7–10.
Cyclostoma inconspicuum, *Sow. Thes.* p. 109, n. 156, t. 24, f. 73, 74.
Aperostoma Popayanum, *Pfr. in Z.* f. *M.* 1847, p. 104.
Cyclotus inconspicuus, *Gray, Cat. Cycl.* p. 10, n. 23.
Cyclotus Popayanus, *Pfr. Consp.* n. 9; *Mon.* p. 21.

Hab. New Granada, Popayan (Gibbon), Chimborazo (Linden), Columbia (Funck).

10. Cyclotus semistriatus. B. M.

Shell turbinate-depressed, rather thin, upper side with crowded minute spiral lines, whitish, brownish-marmorate; lower side smooth, whitish, with fine spiral furrows in the umbilicus, which is moderately large; spire conoidal, rather acuminate; whorls 4–5, rounded, the last one scarcely descending anteriorly; aperture oblique, ovate-rounded; peristome straight, sharp; its margins on the penult whorl angularly joined by a short callus; right margin a little sinuate; columellar margin a little reflexed. Operc.? Height $8\frac{1}{2}$, greatest breadth $13\frac{1}{2}$, least br. 11 mill.

Cyclostoma semistriatum, *Sow. in Proc. Z. S.* 1843, p. 29; *Thes.* p. 91, n. 3, t. 23, f. 6; *Pfr. Ic.* p. 147, n. 156, t. 20, f. 10–12.
Cyclostoma fasciatum, *Hutt. Mss. in Mus. Brit.*
Cyclostoma album, *Hutt. in Mus. Brit.*
Aperostoma semistriatum, *Pfr. in Z.* f. *M.* 1847, p. 104.
Cyclotus semistriatus, *Gray, Cat. Cycl.* p. 10, n. 26; *Pfr. Consp.* n, 10; *Mon.* p. 22.

Hab. India, Poonah and Neemuch; also Ceylon?

11. Cyclotus prominulus. B. M.

Shell depressed, nearly discoidal, thin, with somewhat wrinkled oblique striæ, not shining, white; spire shortly raised, with a fine prominent apex; whorls 4–5, convex, rapidly increasing, the last one depressed, dilated anteriorly and generally disjoined from the penult whorl; umbilicus large; aperture scarcely oblique, nearly circular; peristome straight, sharp, continued, or shortly interrupted, with the margins joined by a shining callus. Operculum with very narrow whorls, the margins of which are acutely raised. Height 8, greatest breadth 15, least br. 12 mill.

Cyclostoma prominulum, *Fer. Mus.*; *Orb. Voy. Amér.* p. 362, 1837.
Cyclostoma planorbulum, *Sow. Conch. Man.* ed. ii. f. 530?
Cyclostoma Brasiliense, *Sow. Spec. Conch. Pt.* ii. *Cyclost.* f. 8; *Zool. of Beechey's Voy.* p. 147, t. 38, f. 32; *Proc. Z. S.* 1843, p. 29; *Thes.* p. 92, n. 4, t. 23, f. 7; *Pfr. Ic.* p. 108, n. 108, t. 12, f. 13–15.
Aperostoma Brasiliense, *Pfr. in Z.* f. *M.* 1847, p. 104.
Cyclotus Brasiliensis, *Gray, Cat. Cycl.* p. 6, n. 4; *Pfr. Consp.* n. 11.
Cyclotus prominulus, *Pfr. Mon. Pneum.* p. 23.

Hab. Brazils; near Rio Janeiro and in Minas Geraes.

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12. Cyclotus suturalis. B. M.

Shell discoidal, rather thin, slightly striate, greenish horn-coloured; spire scarcely prominent, with a fine apex; suture deep, chan-

nelled, marginate; whorls 4, rather convex, marked with a distinct impressed line near the suture, last whorl a little depressed, shortly descending and disjoined anteriorly; aperture scarcely oblique, circular; peristome continued, a little angulate above, simple, straight; the right margin above a little arcuate and dilated. Operculum externally deeply concave, with about 6 whorls, the margins of which are raised and furnished with a fringed membrane. Height 5, greatest breadth 13, least br. 10½ mill.

Cyclostoma suturale, *Sow. in Proc. Z. S.* 1843, p. 29; *Thes.* p. 91, n. 1, t. 23, f. 1, 2; *Pfr. Ic.* p. 109, n. 109, t. 12, f. 10–12.
Aperostoma suturale, *Pfr. in Z.* f. *M.* 1847, p. 104.
Cyclotus suturalis, *Gray, Cat. Cycl.* p. 7, n. 8; *Pfr. Consp.* n. 12; *Mon.* p. 24.

Hab. Demerara (Bainbridge), and Jamaica.

13. Cyclotus dubiosus.

This species differs in one very striking character from C. suturale, *Sow.*, it wants the keel next below the suture, in the place of which there is a depression of the upper part of the whorls. (*Ad.*)

Cyclostoma dubiosum, *Adams, Contrib. to Conch.* n. 9, p. 157.
Cyclotus? dubiosus, *Pfr. Consp.* n. 14; *Mon.* p. 25.

Hab. Jamaica.

14. Cyclotus distinctus.

Shell discoidal, thin, whitish, with numerous radiating striæ and less crowded spiral ridges, which are alternatively less raised; spire flat, with the apex scarcely prominent; suture deeply indented, channelled; whorls 3½, nearly flat, the last one depressed (its breadth surpassing its height), disjoined anteriorly; umbilicus broad; aperture nearly perpendicular, circular; peristome simple, continued, straight, sharp; its left margin a little expanded. Operculum shelly, furnished with a fringed membrame. Height 5½, greatest breadth 14, least br. 10½ mill.

Cyclostoma distinctum, *Sow. Thes.* p. 106, n. 47, t. 24, f. 38; *Pfr. Ic.* p. 146, n. 155, t. 20, f. 7–9.
Cyclostoma orbella (Lam.), *Petit, Journ. Conch.* 1850, i. p. 48.
Cyclophorus? distinctus, *Pfr. in Z.* f. *M.* 1847, p. 108; *Gray, Cat.* p. 22, n. 33.
Cyclotus distinctus, *Pfr. Consp.* n. 13; *Mon.* p. 24.

Hab. W. Columbia, Bay de Montija (Cuming), Haiti (Sallé).

15. Cyclotus Jamaicensis. B. M.

Shell depressed-turbinate, solid, striate, with coarse wrinkled folds near the suture, flesh-coloured, with a chestnut, sometimes banded epidermis; spire short, turbinate, rather acuminate; whorls 5, convex, the last one ventricose, furnished with a prominent, obtuse, compressed ridge round the umbilicus, which is broad and open; aperture oblique, ovate-rounded, inside shining, purplish-orange-red; peristome straight, blunt; its margins joined into an angle, which is often doubled; right margin sinuate; columellar margin strongly arcuate. Operculum with 6–7 whorls, which are concave, and the margins of which are a little raised and slightly reflected. Height 18, greatest breadth 26, least br. 22 mill.

Turbo Jamaicensis, *Chemn. Conch.* xi. p. 277, t. 209, f. 2057, 2058; *Gray, in Wood. Suppl.* t. 6, f. 3.
Cyclostoma Jamaicense, *Gray, in Wood, Suppl.* p. 36; *Sow. Thes.* p. 96, n. 15, t. 23, f. 12, 13; *Pfr. Ic.* p. 16, n. 7, t. 2, f. 15–17 (*excl. operc.*), t. 44, f. 1; *Adams, Contrib. to Conch.* n. 8, p. 143.
Cyclostoma corrugatum, *Menke, Catal. Mal.* p. 10.
Poteria, *Gray, Syn. Br. Mus.* 1842, p. 91; *Proc. Z. S.* 1847, p. 181.
Aperostoma Jamaicense, *Pfr. in Z.* f. *M.* 1847, p. 104.
Cyclotus (Poteria) lineatus, *Gray, Cat. Cycl.* p. 11, n. 27.
Cyclotus Jamaicensis, *Pfr. Consp.* n. 15; *Mon.* p. 25.

β. Shell all over slightly wrinkled, with the umbilicar ridge from the outside not compressed. (*Pfr. Ic.* t. 44, f. 2–4.)
γ. Shell reddish-white, with two broad chestnut bands, and the upper margin of the peristome more distinctly sinuate. Height 12, diam. 21 mill.

Hab. Jamaica.

16. Cyclotus corrugatus. B. M.

Shell subturbinate-depressed, solid, regularly all over angularly wrinkled, white, with a deciduous fulvid epidermis; spire short, reddish, rather acuminate; whorls 5, convex, the last one cylindrical, nearly flat beneath, with a nodulous ridge around the umbilicus, which is open and of a middle size; aperture a little oblique, nearly circular, with a slight angle above, inside whitish; peristome straight, blunt; its margins joined into an angle, which often is doubled; right margin slightly sinuate; left margin shortly affixed to the penult whorl. Operculum concave externally, with 9 very narrow whorls, the margin of which is dilated into broad, spiral, raised, somewhat expanded lamina. Height 14, greatest breadth, 22, least br. 19 mil.

Cyclostoma corrugatum, *Sow. in Proc. Z. S.* 1843, p. 30 ; *Thes.* p. 95, n. 14, t. 23, f. 10, 11 ; *Pfr. Ic.* p. 17, n. 8, t. 2, f. 13, 14, t. 44, f. 5, 6 ; *Adams, Contrib. to Conch.* N. 8, p. 143.
Aperostoma corrugatum, *Pfr. in Z.* f. *M.* 1847, p. 104.
Cyclotus (Poteria) Jamaicensis, *Gray, Cat. Cycl.* p. 11, n. 28.
Cyclotus corrugatus, *Pfr. Consp.* n. 16 ; *Mon.* p. 26.

Hab. Jamaica.

17. Cyclotus jugosus.

Shell depressed, solid, white, with a fulvous-brownish periostraca and crowded striæ ; spire raised very shortly, terminated into a fine reddish apex ; suture slight, whorls 5, depressed-convex, rapidly increasing, the last one dilated anteriorly, irregularly and coarsely wrinkled and nodulous above, obliquely rugose and sulcate beneath, with an obsolete keel around the large funnel-shaped umbilicus ; aperture very oblique, transversely ovate, inside white ; peristome continued, shortly affixed ; its margins joined above into an angle, which is sometimes superstructed ; right margin sinuate, blunt ; columellar margin slightly arcuate, thickened. Operculum concave, of 8 narrow whorls, the margins of which are raised into a high and incurved lamella. Height 12, greatest breadth 24, least br. 18 mill.

Cyclostoma jugosum, *Adams, Contrib. to Conchol.* n. 8, p. 143 ; *Pfr. Fc.* n. 358, t. 44, f. 10–13.
Cyclotus jugosus, *Pfr. Consp.* n. 17 ; *Mon.* p. 27.

Hab. Jamaica.

18. Cyclotus pallescens.

Shell with the spire brownish-red, and the last whorl white ; with a brown epidermis ; with the transverse striæ fine and regular on the spire, and very irregular on the last whorl ; with fine wrinkles commencing above near the end of the penult whorl ; last whorl very coarsely and irregularly wrinkled above, nearly or quite smooth beneath ; the umbilical keel is obsolete ; spire depressed ; whorls nearly 5 ; last whorl flattened above, with the suture moderately impressed ; aperture orbicular, slightly effuse and pointed above ; lip scarcely sinuate above, moderately advanced on the right side ; umbilicus about two-thirds as wide as the aperture. Operculum with a much elevated spiral lamella, the whorls of which, 6 or 7 in number, are saucer-shaped, that is, reflected, with the inner surface concave. Height 0.67, greatest breadth 1.15, least breadth 0.91 inch. (*Ad.*)

Cyclostoma pallescens, *Adams, Contrib. to Conch.* n. 8, p. 143, 144.
Cyclotus pallescens, *Pfr. Consp.* n. 18 ; *Mon.* p. 27.

Hab. Jamaica.

19. Cyclotus varians.

Shell depressed, solid, pale-coloured, with a chestnut-brown periostraca; spire scarcely raised, with the apex reddish, minutely mucronate; suture impressed; whorls $4\frac{1}{2}$, depressed convex; the two last ones covered with strong and oblique angular wrinkles; the last one depressed near the suture, more minutely and obliquely furrowed beneath, with a compressed angle around the broad, funnel-shaped umbilicus; aperture a little oblique, nearly circular, reddish inside; peristome continued, very shortly affixed, with the margins joined into a simple angle; right margin slightly arcuate, sharp; columellar margin strongly arcuate, reflected. Operc. scarcely concave, with a raised spiral lamella of about 8 whorls, the upper edges of which are reflected and expanded so as to be nearly in contact. Height 11, greatest breadth 24, least br. 20 mill.

Cyclostoma varians *Adams, Contrib. to Conch.* n. 8, p. 143–145; *Pfr. Ic.* n. 357, t. 44, f. 7–9.
Cyclotus varians, *Pfr. Consp.* n. 19; *Mon.* p. 27.

Hab. Jamaica.

20. Cyclotus seminudus.

Shell brownish-orange, or brownish on the spire, reddish-white on the last whorl; with a brown epidermis, which on the last whorl is limited to two or three dark-brown, broad, well-defined spiral bands, which are often confluent in one; with the transverse striæ very fine; wrinkles commencing about the middle of the penult whorl, mostly foveate; last whorl very irregularly wrinkled above, minute white pits exterior to the well-developed umbilical keel, otherwise smooth; spire well elevated; whorls nearly 5, with a slight depression at the top of the last whorl; with the suture well impressed; aperture suborbicular, quite effuse, and pointed above; lip thick, a little sinuate above, and well advanced on the right side; umbilicus about three-quarters as wide as the aperture. Operculum quite concave, with the spiral lamella scarcely elevated, but much thickened and appressed on the exterior side. Height 0.65, greatest breadth 1 inch, least br. 0.79 inch. (*A.*)

Cyclostoma seminudum, *Adams, Contrib. to Conch.* n. 8, p. 143, 146.
Cyclotus seminudus, *Pfr. Consp.* n. 20; *Mon.* p. 28.

Hab. Jamaica, Manchester.

21. Cyclotus subrugosus.

Shell depressed, solid, with oblique foveate wrinkles, white; spire scarcely raised, nipple-shaped; whorls $4\frac{1}{2}$, moderately convex, the last one obsoletely angular at the periphery, disjoined anteriorly from the penult one, deflected, angular above, obtusely

carinate around the broad umbilicus; aperture oblique, circular; peristome continued, straight, rather thickened. Operc.? Height $7\frac{1}{2}$, greatest breadth 16, least br. $12\frac{1}{2}$ mill.

Cyclostoma subrugosum, *Sow. Thes. Suppl.* n. 186, p. 161*, t. 31, *B.* f. 308, 309; *Pfr. Ic.* n. 334, t. 42, f. 19, 20.
Cyclotus subrugosus, *Pfr. Consp.* n. 21; *Mon.* p. 28.

Hab. Jamaica.

22. Cyclotus Duffianus.

Shell large, discoidal, reddish and white; whorls $4\frac{1}{2}$, cylindrical; umbilicus broad, deep; margin simple. Operc.? Height 0.87, greatest breadth 1.9, least br. 1.45 inch. (*A.*)

Cyclostoma Duffianum, *Adams, in Proc. Bost. Soc.* 1845, p. 11.
Aperostoma Duffianum, *Pfr. in Z.* f. *M.* 1847, p. 104.
Cyclotus? Duffianus, *Gray, Cat. Cycl.* p. 7, n. 5; *Pfr. Consp.* n. 22; *Mon.* p. 29.

Hab. Jamaica.

23. Cyclotus crassus.

Shell conoidal-depressed, solid, with crowded striæ, greenish-brown, or dark-brownish; spire shortly conoidal, with the apex yellowish, rather pointed; suture moderate; whorls 5, convex; the last one obsoletely spirally striate, slightly wrinkled above, rather convex beneath, not, or scarcely, compressed around the umbilicus, which is not very large; aperture oblique, oval, angular, livid, and shining inside; peristome continued, shortly affixed, with the margins joined into a subacute angle; right margin straight, simple; columellar margin thickened, somewhat reflected. Operc. of 7 whorls, with the spiral lamina raised and moderately reflected. Height 10, greatest breadth 18, least br. 15 mill.

Cyclostoma crassum, *Adams, Contrib. to Conch.* n. 8, p. 143, 147; *Pfr. Ic.* n. 359, t. 44, f. 14–16.
Cyclotus crassus, *Pfr. Consp.* n. 23; *Mon.* p. 29.

Hab. Jamaica, Manchester.

24. Cyclotus perpallidus.

Shell white, reddish on the upper whorls, with a pale greenish-brown epidermis; transverse striæ, very fine, wrinkled, with minute wrinkles nearly covering the last whorl; umbilical keel wanting; spire moderately elevated; whorls 5; last whorl flattened beneath, making the periphery subangular; with the suture well impressed; aperture suborbicular, effuse, pointed, and much advanced above; lip thick; umbilicus half as wide as the aperture. Operc.? Height 0.45, greatest breadth 0.7, least br. 0.58 inch. (*A.*)

Cyclostoma perpallidum, *Adams, Contrib. to Conch.* n. 8, p. 148, n. 9, p. 157.
Cyclotus perpallidus, *Pfr. Consp.* n. 24 ; *Mon.* p. 29.

Hab. Jamaica.

25. Cyclotus Fortunei.

Shell turbinate-depressed, rather solid, faintly striated, fulvous, minutely marbled with chestnut-colour and with a single band of the same below the periphery ; spire very short, turbinate, with a very small apex ; suture simple ; whorls $4\frac{1}{2}$, convex, last cylindrical, not descending ; umbilicus conical, deep, forming about a quarter of the total breadth ; aperture nearly perpendicular, rather circular, slightly angulated above ; peristome simple, straight, shortly affixed to the penultimate whorl. Operculum typical, with the raised margin of the whorls thread-like. Height 7, breadth $12\frac{1}{2}$ mill.

Cyclostoma Fortunei, *Pfr. in Proc. Zool. Soc.* 1852; *Ic.* n. 404, t. 49, f. 3–5.
Cyclotus Fortunei, *Pfr. Pneum. Monogr.* p. 30.

Hab. China, Shanghai (Mr. Fortune).

§ 2. *Peristome simple, expanded.*

26. Cyclotus? volvuloides.

Shell turbinate-depressed, solid, with crowded spiral lines above and at the base, shining, variegated with flesh-colour, and brownish violaceous; spire turbinate, rather blunt; whorls 5, very much rounded, the last one broad, rounded, and nearly smooth at its periphery ; umbilicus broad, deep ; aperture scarcely oblique, nearly circular, fulvous inside ; peristome simple, shortly interrupted, white, with the upper margin sinuate, expanded ; right margin short; columellar margin much dilated, expanded. Operc.? Height 14, greatest breadth 25, least br. 19 mill.

Cyclostoma volvuloides, *Sow. Thes. Suppl.*, n. 187, p. 162*, t. 31, *B.* f. 312, 313 ; *Pfr. Ic.* n. 231, t. 33, f. 8, 9.
Cyclotus ? volvuloides, *Pfr. Consp.* n. 25 ; *Mon.* p. 30.

Locality unknown.

27. Cyclotus subdiscoideus. B. M.

Shell depressed, rather solid, covered with crowded spiral lines on the whole surface, opaque, of a pale flesh-colour, marked above with pale brownish spots, which are arranged in stripes ; spire very shortly turbinate, with the apex nipple-shaped ; whorls $4\frac{1}{2}$–5, convex, the last one nearly cylindrical, descending anteriorly ; umbilicus broad ; aperture nearly diagonal, circular,

flesh-coloured inside; peristome simple, with the margins almost contiguous, upper margin sinuate, a little expanded; columellar margin shortly reflected. Operc. nearly flat, with the margins of the whorls sharply raised. Height 8, greatest breadth 17, least br. 13½ mill.

Cyclostoma subdiscoideum, *Sow. Thes. Suppl.* n. 184, p. 161*, t. 31, *B.* f. 304, 305; *Pfr. Ic.* n. 325, t. 41, f. 33, 34.
Cyclostoma rusticum, *Pfr. in Proc. Zool. Soc.* 1851.
Cyclotus Pfeifferi, *Gray, Cat. Cycl.* p. 9, n. 20 (not described).
Cyclotus subdiscoideus, *Pfr. Consp.* n. 26; *Mon.* p. 31, 415.
Cyclostoma aratum, *Bens. in Ann. and Mag.* New ser. viii. p. 190.
Cyclotus aratus, *Pfr. Consp.* n. 27; *Mon.* p. 31.

Hab. East India, the province Northern Circass. (Jerdon).

28. Cyclotus orbellus. B. M.

Shell nearly discoidal, thin, diaphanous, pale fulvous or ash-coloured, with sharp spiral ridges, which are distant above, more crowded and smaller beneath; spire flat, with the apex prominent, nipple-shaped; suture broadly channelled; whorls 4½, moderately convex, the last one cylindrical, deflected anteriorly; umbilicus very large; aperture very oblique, nearly circular; peristome simple, sharp, with the margins approaching each other; right margin a little expanded, crenulate; basal margin reflected. Operc.? Height 5½, greatest breadth 14, least br. 11 mill.

Cyclostoma orbella, *Lam. Hist.* vi. p. 148, n. 23, ed. *Desh.* viii. p. 360, n. 22; *Delesf.* recueil, t. 29, f. 13; *Sow. Thes.* n. 7, p. 93, t. 23, f. 6*, 6**; *Chemn. Ill. Conch. Livr.* 73, t. i, f. 13; *Pfr. Ic.* n. 154, p. 145, t. 20, f. 4–6.
Cyclostoma variabile, *Fer. MSS. fide, Mus. Cuming.*
Cyclostoma Lamarckii, *Petit, in Journ. Conch.* i. p. 41.
Cyclophorus? orbellus, *Pfr. in Z.* f. *M.*, 1847, p. 108.
Cyclotus? orbellus, *Gray, Cat. Cycl.* p. 9, n. 21; *Pfr. Consp.* n. 28; *Mon.* p. 32, β? With the spire a little more raised, and the basal ridges more distinct; operculum typical of Cyclotus.
Cyclostoma orbella var.? *Pfr. Ic.* t. 41, f. 26, 27.

Hab. Madagascar? (Ferussac); the variety (?) from Guadaloupe.

29. Cyclotus? diatretus.

Shell planorboid, whitish-horn-coloured, angular, with distant ribs on the upper side, which are in the intervals crossed by longitudinal striæ; umbilicus broad; spire flattened; whorls 4, cylindrical, rapidly increasing, shelving near the suture; aperture circular; peristome simple. Height ⅕, breadth ⅖ inch. (*g.*)

Cyclostoma diatretum, *Gould, in Proc. Bost. Soc.* 1847, p. 205; Exped. shells, p. 38, ed. 1851, p. 105, f. 124.
Cyclotus? diatretus, *Pfr. Consp.* n. 29; *Pneum. Mon.* p. 33.

Hab. Feejee Islands, Sandalwood Bay.

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30. Cyclotus conoideus. B. M.

Shell globose-turbinate, thin, marmorated and banded with pale brownish and reddish-brown, girdled with raised spiral lines, and sometimes with one or two more distinct keels; spire conic, rather pointed; suture deep, somewhat crenate, or reddish-brown-spotted; whorls $4\frac{1}{2}$, convex, the last one more distinctly furrowed around the umbilicus, which is somewhat funnel-shaped and of a middle size; aperture nearly circular, of the same colour, and shining inside; peristome sharp, thin, a little expanded, with the margins nearly contiguous, joined into an angle by a short callus. Operculum of 5 whorls. Height 8, greatest breadth $10\frac{1}{2}$, least breadth 9 mill. (*Pf.*)

Cyclostoma spurcum, *Sow. in Proc. Z. S.* 1843, p. 60; *Thes.* n. 26, p. 99, t. 24, f. 75, 76. Not *Grateloup.*
Cyclostoma conoideum, *Pfr. in Z.* f. *M.* 1846, p. 44; *Ic.* n. 99, p. 101, t. 13, f. 19–21.
Cyclostoma varium, *Barcl. MSS.?*
Tropidophora conoidea, *Pfr. in Z.* f. *M.* 1847, p. 107.
Cyclotus conoideus, *Gray, Cat. Cycl.* p. 10, n. 25; *Pfr. Consp.* n. 30; *Pneum. Mon.* p. 33.

Hab. Seychelles Islands (Sowerby); South-America (Fitzroy, Gray); Mauritius (Barclay).

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31. Cyclotus Mexicanus. B. M.

Shell depressed, nearly orbicular, rather solid, with crowded striæ, opaque, flesh-coloured-whitish; spire short, somewhat mucronate; whorls $5\frac{1}{2}$, rounded, gradually increasing, the last one cylindrical, scarcely connected with the penult one; umbilicus broad, open; aperture nearly perpendicular, circular, fulvous inside; peristome continued, rather thickened and shortly expanded, with the left margin quite loose, deeply emarginate near the umbilicus, dilated and expanded below the notch. Operc.? Height 12, greatest breadth 24, least br. 19 mill.

Cyclostoma Mexicanum, *Menke, Synops.* ed. ii. p. 133; *Voigt, in Cuvier, Thierr.* iii. p. 78; *Philippi, Abild.* i. 5, p. 104, t. 1, f. 4; *Sow. Thes.* n. 64, p. 112, t. 25, f. 93; *Pfr. Ic.* n. 49, p. 56, t. 7, f. 21, 22.

Aperostoma Mexicanum, *Pfr. in Z.* f. *M.* 1847, p. 104.
Cyclotus Mexicanus, *Gray, Cat. Cycl.* p. 9, n. 19; *Pfr. Consp.* n. 31; *Pneum. Mon.* p. 34.

Hab. Mexico, Papantla (Dr. Schiede).

32. Cyclotus pusillus. B. M.

Shell suborbicular, thin, slightly striate, nearly smooth, diaphanous, pale greenish; spire short, raised in the middle, mucronate; whorls $4\frac{1}{2}$, convex, the last one deflected, nearly disjoined anteriorly, more distinctly striate beneath; umbilicus broad, open; aperture little oblique, nearly circular, white and shining inside; peristome continued, rather simple, a little expanded, somewhat emarginate at the penult whorl, with the right margin forward arcuate. Operc. typical. Height 6, greatest breadth 11, least br. 9 mill.

Cyclostoma pusillum, *Sow. in Proc. Z. S.* 1843, p. 59; *Thes.* n. 10, p. 94, t. 23, f. 5, 5*; *Pfr. Ic.* n. 53, p. 59, t. 7, f. 16, 17.
Aperostoma pusillum, *Pfr. in* Z. f. *M.* 1847, p. 104.
Cyclotus pusillus, *Gray, Cat. Cycl.* p. 9, n. 18; *Pfr. Consp.* n. 33; *Pneum. Mon.* p. 34.

Hab. Philippine Islands, Luzon and Negros (H. Cuming).

33. Cyclotus scalaris.

Shell conoidal, rather solid, obliquely and slightly striate, a little shining, horn-coloured yellow; spire raised, stair-like, with the apex pointed; suture deep; whorls $4\frac{1}{2}$, very much rounded, the last one cylindrical, a little disjoined anteriorly; umbilicus narrow, open; aperture oblique, circular, pearly inside; peristome simple, continued, scarcely expanded on all sides. Operc.? Height $6\frac{1}{2}$, greatest breadth 9, least br. 7 mill.

Cyclostoma scalare, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 328, t. 41, f. 38, 39.
Cyclotus scalaris, *Pfr. Consp.* n. 34, p. 50; *Pneum. Mon.* p. 35.

Hab. Philippine Islands.

§ 3. *Peristome double.* Cyclotus, *Sw.*

34. Cyclotus hebraicus. B. M.

Shell rather depressed, nearly orbicular, slightly striate, nearly smooth, pale brownish-whitish, often with brown stripes and spots above; spire short, rather blunt; whorls $4\frac{1}{2}$–5, convex, the last one with a chestnut-coloured band below the periphery, nearly disjoined anteriorly; umbilicus broad, quite open; aperture nearly circular; peristome continued, duplicate; internal

edge short, straightforward, external edge a little expanded, angular, inflected and dilated above. Operc. typical. Height 12, greatest breadth 22, least br. 18 mill.

Valvata hebraica, *Less. Voy. de la Coquille*, p. 347, t. 13, f. 8.
Cyclostoma papua, *Quoy & Gaim. Voy. Astol.* ii. p. 185, t. 12, f. 23–26; *Desh. in Lam. Hist.* viii. p. 369, n. 35; *Hombr. & Jacq. Voy. Pol. Sud. Moll.* t. 12, f. 16–19.
Cyclostoma distomella, *Sow. Thes.* n. 68, p. 114, t. 25, f. 94; *Pfr. Ic.* n. 91, p. 95, t. 12, f. 4, 5, t. 28, f. 14, 15.
Aperostoma distomella et hebraicum, *Pfr. in Z.* f. *M.* 1847, p. 104.
Cyclophorus? papua, *Pfr. ibid.* p. 108.
Cyclotus distomellus, *Gray, Cat. Cycl.* p. 7, n. 9.
Cyclotus hebraicus, *Gray, Cat. Cycl.* p. 8, n. 10; *Pfr. Consp.* n. 35; *Pneum. Mon.* p. 35.

Hab. New Guinea.

35. Cyclotus? discoideus.

Shell discoidal, rather solid, slightly striate, white, with a pale yellow periostraca; spire quite depressed, with the apex scarcely prominent; suture deep; whorls $4\frac{1}{2}$, cylindrical, the last one descending anteriorly; umbilicus broad; aperture circular, white inside; peristome double; internal edge short, straight, appressed, outer edge rather thickened, with the right margin broadly expanded. Operc.? Height 7, greatest breadth 20, least br. 15 mill.

Cyclostoma discoideum, *Sow. Thes.* n. 60, p. 111, t. 25, f. 87, 88; *Pfr. Ic.* n. 153, p. 144, t. 20, f. 1–3; *Mouss. jav. Moll.* p. 50, t. 20, f. 10.
Aperostoma discoideum, *Pfr. in Z.* f. *M.* 1847, p. 104.
Cyclotus discoideus, *Gray, Cat. Cycl.* p. 8, n. 11; *Pfr. Consp.* n. 36; *Pneum. Mon.* p. 36.

Hab. Demerara (Sowerby); Malang, Fava? (Mousson.)

36. Cyclotus? opalinus.

Shell orbicular, flattened above, very broadly umbilicate or concave beneath, diaphanous, smooth, very shining, white, somewhat opaline; whorls 5, cylindrical, the last one equalling $\frac{3}{7}$ of the whole diameter; spire scarcely prominent; suture deep; aperture disjoined from the penult whorl, perfectly circular; peristome continued, duplicate; outer edge expanded, somewhat reflected. Operc.? Height 9.3; greatest breadth 21.2; least br. 17.2 mill. (*M.*)

Cyclostoma opalinum, *Mouss. jav. Moll.* p. 51, t. 5, f. 12.
Cyclotus? opalinus, *Pfr. Consp.* n. 37; *Pneum. Mon.* p. 36.

Hab. Malang, Fava (Zollinger).

37. Cyclotus mucronatus. B. M.

Shell orbicular, rather thin, a little roughly striate, pale brownish; spire very short, mucronate; whorls 4½, rapidly increasing, convex, the last one a little deflected and nearly disjoined anteriorly; umbilicus broad, open; aperture oblique, circular, brownish-white inside; peristome continued, double; inner edge short, straight; outer edge somewhat expanded, sinuate above, spirally striate inside. Operc. typical. Height 7, greatest breadth 15, least br. 13 mill.

Cyclostoma mucronatum, *Sow. in Proc. Z. S.* 1843, p. 63; *Thes.* n. 66, p. 113, t. 25, f. 91; *Pfr. Ic.* n. 52, p. 58, t. 7, f. 11–13.
Aperostoma mucronatum, *Pfr. in Z.* f. *M.* 1847, p. 104.
Cyclotus mucronatus, *Gray, Cat. Cycl.* p. 8, n. 12; *Pfr. Consp.* n. 38; *Pneum. Mon.* p. 37.

Hab. Calanang, island of Luzon (H. Cuming).

38. Cyclotus substriatus. B. M.

Shell orbicular, slightly mucronate, rather solid, brownish, distinctly radiating striate near the suture; spire flattened, raised in the middle into a small point; whorls 4½, convex, the last one a little deflected anteriorly; umbilicus broad, open; aperture oblique, circular, fulvous inside; peristome somewhat duplicate; inner edge affixed; outer edge a little thickened and shortly expanded, concentrically striate, with an indistinct external angle near the penult whorl. Operc. typical. Height 6½, greatest breadth 14, least br. 11 mill.

Cyclostoma substriatum, *Sow. in Proc. Z. S.* 1843, p. 61; *Thes.* n. 67, p. 113, t. 25, f. 95; *Pfr. Ic.* n. 51, p. 57, t. 7, f. 18–20.
Aperostoma substriatum, *Pfr. in Z.* f. *M.* 1847, p. 104.
Cyclotus substriatus, *Gray, Cat. Cycl.* p. 9, n. 16; *Pfr. Consp.* n. 39; *Pneum. Mon.* p. 37.

Hab. The Philippine Island, Siquijor (H. Cuming).

39. Cyclotus corniculum.

Shell small, depressed conic, broadly umbilicate beneath, thin, pale, yellowish, transversely painted with brown angular lines; whorls 4½, cylindrical, rapidly increasing, the last one equalling ⅓ of the whole diameter; spire a little prominent; suture simple, deep; aperture somewhat disjoined, circular; peristome duplicate; outer edge rather expanded. Operc. typical. Height 6, greatest breadth 9.5; least br. 8 mill. (*M.*)

Cyclostoma corniculum, *Mouss. jav. Moll.* p. 51, t. 5, f. 11.
Cyclotus corniculum, *Pfr. Consp.* n. 40; *Pneum. Mon.* p. 38.

Hab. Pardana, Fava (Zollinger).

40. CYCLOTUS PLEBEJUS. B. M.

Shell depressed, globular, rather thin, striate, violaceous-brownish; spire shortly turbinate, rather pointed; whorls 4, convex, rapidly increasing, the last one somewhat inflated, whitish near the suture and behind the aperture; umbilicus narrow, open; aperture oblique, circular, chestnut-coloured inside; peristome continued, sharp, forming a duplicate angle at its junction with the penult whorl. Operc. typical. Height $8\frac{1}{2}$, greatest breadth 12, least br. $10\frac{3}{4}$ mill.

Cyclostoma plebejum, *Sow. in Proc. Z. S.* 1843, p. 60; *Thes.* n. 12, p. 94, t. 24, f. 40; *Pfr. Ic.* n. 50, p. 56, t. 7, f. 14, 15.
Aperostoma plebejum, *Pfr. in Z. f. M.* 1847, p. 104.
Cyclotus plebejus, *Gray, Cat. Cycl.* p. 7, n. 7; *Pfr. Consp.* n. 41; *Pneum. Mon.* p. 38.

Hab. Island of Luzon, the province Laguna (H. Cuming).

41. CYCLOTUS EXIGUUS.

Shell subdiscoid, with a rather elevated spire, and with four rounded white smooth volutions; suture deeply impressed; aperture circular, with a reflected bordered peritreme; umbilicus large. Height 6, breadth $10\frac{1}{2}$ mill. (*S.*)

Cyclostoma exiguum, *Sow. Thes.* n. 63, p. 112, t. 25, f. 92; *Pfr. Ic.* n. 216, p. 192, t. 28, f. 24.
Aperostoma exiguum, *Pfr. in Z. f. M.* 1847, p. 104.
Cyclotus exiguus, *Gray, Cat. Cycl.* p. 9, n. 17; *Pfr. Consp.* n. 42; *Pneum. Mon.* p. 39.

Locality unknown.

Myxostomella, *Gray.*

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42. CYCLOTUS VARIEGATUS. B. M.

Shell discoidal, rather solid, minutely striate, pale fulvous, uniform, or with chestnut-coloured stripes, bands or square spots; spire flattened, with the apex not prominent, often blackish; whorls $4\frac{1}{2}$, moderately convex, the last one cylindrical; umbilicus very broad and open; aperture a little oblique, circular; peristome double; inner edge short, continued; external edge rather expanded, dilated above and auriculate near the penult whorl. Operc. typical. Height $6\frac{1}{2}$, greatest breadth $20\frac{1}{2}$, least br. 17 mill.

Cyclostoma planorbulum, *Sow. Genera of Sh. Cyclost.* f. 1; *Sow. Thes.* n. 58, p. 110, t. 25, f. 85; *Pfr. Ic.* n. 174, p. 161, t. 22, f. 6–16. Not *Lamarck.*
Cyclostoma cornu venatorium, *Pet. in Journ. Conch.* i. p. 43.

Cyclotus variegatus, *Swains. Malac.* p. 336; *Pfr. Consp.* n. 43; *Pneum. Mon.* p. 39.
Aperostoma planorbulum, *Pfr. in Z.* f. *M.* 1847, p. 104.
Cyclotus planorbulus, *Gray, Cat. Cycl.* p. 8, n. 14 (part).

Hab. Philippine Islands (H. Cuming).

43. Cyclotus Taylorianus.

Shell depressed, nearly discoidal, thin, minutely striate, scarcely shining, whitish, with very elegant chestnut-coloured angulated stripes, and a fulvous-horn-coloured periostraca; spire nearly flat, with the apex horn-coloured, mucronate; suture deep; whorls 5, convex, the last one with two obsolete angles, each of which is furnished with a series of long black hairs, scarcely deflected anteriorly, bearing a small beak-like recurved spiraculum on the suture, at the distance of 4 mill. behind the peristome; umbilicus very broad; aperture very oblique, nearly circular; peristome rather duplicate; inner edge expanded, affixed, sometimes indistinct; outer edge rather notched near the penult whorl; left margin shortly reflected; right margin broadly expanded; upper margin dilated, roof-like. Operculum like that of C. variegatus. Height 6, greatest breadth 17, least br. 13 mill.

Cyclostoma Taylorianum, *Pfr. in Z.* f. *M.* 1851, p. 7; *Ic.* n. 285, t. 38, f. 27–29, t. 43, f. 1–3.
Cyclostoma Charbonnieri, *Récher. in Journ. Conch.* 1851, ii. p. 214, t. 5, f. 12, 13.
Cyclotus Taylorianus, *Pfr. Consp.* n. 32; *Pneum. Mon.* p. 40.

Hab. Borneo, Sarawak.

Compare with Pterocyclos biciliatus, *Mousson.*

44. Cyclotus rostellatus.

Shell depressed, rather solid, slightly striate, horn-coloured, with fulminating chestnut stripes; spire very shortly turbinate, with the apex mucronate, black; whorls 4½, convex, the last one descending anteriorly, bearing a beak-like recurved spiraculum 5 mill. behind the peristome; umbilicus moderately broad; aperture very oblique, nearly circular; peristome double, reddish; inner edge continued, a little expanded, affixed to the outer one, which is reflected into the plane of the aperture, very narrow below the penult whorl, shortly and convexly dilated above. Operc. typical. Height 5, greatest breadth 11, least br. 9 mill.

Cyclostoma rostellatum, *Pfr. in Z.* f. *M.* 1851, p. 8; *Ic.* n. 286, t. 38, f. 30–34.
Cyclotus rostellatus, *Pfr. Consp.* n. 44; *Pneum. Mon.* p. 40.

Hab. Singapore (Taylor).

This species differs from C. Taylorianus by its spire, which is rather turbinate, by the more deflected last whorl, by the umbilicus, which is much narrower, by the more distinctly duplicate peristome, and by the greater distance of the spiraculum from the peristome. Compare with Pterocyclos spiracellum.

II. PTEROCYCLOS.

Operculum subcartilaginous, many-whorled, spirally lamellated, concave inside. Shell broadly umbilicated, rather discoidal; peristome generally double; the internal short, cut on the right margin, the external dilated above into a roof-shaped beak.

Pterocyclos, *Benson*, *in Journ. As. Soc.* i. 1832, p. 11; and v. 1836, p. 356; *Zool. Journ.* v. n. 20, 1834, p. 462; *Ann. & Mag.* 2nd ser. i. p. 345; *Gray*, *Syn. Br. Mus.* 1840, p. 133, ed. 1842, pp. 71, 91; *Proc. Z. S.* 1847, p. 182; *Cat. Cycl.* 1850, p. 11; *Sow. jun. Conch. Man.* ed. ii. p. 238; *Pfeiffer*, *in Mart. & Chemn.* ed. ii. tom. i. 19, p. 7, 193; *Z.* f. *M.* 1847, p. 111, and 1851, p. 1; *Troschel*, *in Z.* f. *M.* 1847, p. 44; *Z.* f. *M.* 1851, p. 135; *Consp.* p. 7; *Pneum. Mon.* p. 41.

Spiraculum, *Pearson*, *in Journ. As. Soc.* ii. 1833, p. 590.

Steganotoma, *Troschel*, *in Wiegm. Arch.* f. *Nat.* 1837, i. p. 163; *Philippi*, *Abild.* i. 1844, p. 105.

Myxostoma, *Trosch. ibid.* p. 44; *Pfr. ibid.* p. 111; *Gray*, *in Proc. Z. S.* 1847, p. 182; *Cat. Cycl.* p. 14.

Lituus, *Martyn*, *U. C.* 1784; *Hump. Mus. Calen.* 1797; *Gray*, *R. Z. Soc.* 1847, 182.

The species belonging to this genus may be arranged in the following manner:—

A. Abnormal;
1. With the peristome nearly simple . § 1. N. 1.
2. Peristome double; operculum externally nearly flat, with the outer whorls raised in lamellæ . . . § 2. „ 2–3.

B. Genuine; operculum externally very convex, margin of the whorls forming spiral horizontal lamella . . . . . § 3. „ 4–16.

§ 1. *Peristome nearly simple.*

1. Pterocyclos? incomptus.

Shell depressed, solid, coarsely striate, opaque, white, with a deciduous brownish-horn-coloured periostraca; spire little raised, with the apex prominent; whorls 5, rapidly increasing, the last one cylindrical, obsoletely angulated; umbilicus very broad; aperture diagonal, nearly circular; peristome simple, with the

columellar margin thickened, shortly affixed, separated by a deep notch from the upper one, which is dilated like a wing. Operc. ? Height 15, greatest breadth 40, least br. 32 mill.

Cyclostoma incomptum, *Sow. Thes. Suppl.* n. 183, p. 160*, t. 31, *A.* f. 298, 299.

Pterocyclos incomptus, *Pfr. in Z.* f. *M.* 1851, p. 9; *Ic.* t. 31, f. 1, 2; *Consp.* n. 45; *Pneum. Mon.* p. 42.

Hab. India ? (Sowerby); Brazils (Cuming).

§ 2. *Peristome double. Operculum externally nearly flat, with the outer whorls raised in lamella.* Myxostoma, *Trosch.*

2. Pterocyclos brevis. B. M.

Shell conoid-semiglobose, solid, slightly striate, a little shining, chestnut-coloured, with fulvous spots and stripes; spire short, rather blunt; suture broadly impressed, bordered; whorls 5, convex, the last one angularly compressed round the broad and funnel-shaped umbilicus; aperture rather circular, white inside; peristome thickened, reflected, produced above in a triangular beak, which is closely pressed to the penult whorl, deeply channelled internally, and forms externally a broad, prominent, knot. Operculum blackish. Height 22, greatest breadth 36, least br. 30 mill.

Lituus brevis, *Martyn, Fig. of non-descr. Shells*, t. 28, *c.* ed. *Chenu*, (*Bibl. Conch.* ii.), p. 21, t. 8, f. 2.

Turbo Petiverianus, *Gray, in Wood, Ind. Suppl.* t. 6, f. 2.

Cyclostoma Petiverianum, *Gray, in Wood, Suppl.* p. 36; *Sow. Spec. Conch.* f. 97, 98; *Thes.* n. 74, p. 116, t. 25, f. 100, 101; *Reeve, Conch Syst.* ii. t. 184, f. 15; *Petit, in Journ. Conch.* i. p. 43.

Cyclostoma breve, *Pfr. Ic.* p. 116, n. 180, t. 24, f. 1, 2.

Myxostoma Petiverianum, *Trosch. in Z.* f. *M.* 1847, p. 44.

Myxostoma breve, *Pfr. ibid.* p. 111; *Gray, Cat. Cycl.* p. 15, n. 1.

Pterocyclos brevis, *Pfr. in Z.* f. *M.* 1851, p. 9; *Consp.* n. 46; *Pneum. Mon.* p. 42.

Hab. India, Pulo Condore.

3. Pterocyclos planorbulus. B. M.

Shell depressed, discoidal, rather solid, striate, and irregularly foveate, fulvous, with crowded angular reddish-brown radiating lines; spire flat, with the apex scarcely prominent; suture deep, channelled; whorls 5, moderately convex, the last one nearly cylindrical, with a blackish band at the periphery, white round the very broad umbilicus; aperture oblique, rather circular, blueish-white inside; peristome double; inner edge shortly expanded, indented above with a triangular notch; external edge scarcely broader, expanded, dilated into a disjoined wing above the notch. Operc. like that of C. brevis. Height 12, greatest breadth 39, least br. 31 mill.

Cornu venatorium, *Chemn. Conch.* ix. P. ii. p. 104, t. 127, f. 1132, 33 ?
Cyclostoma planorbula, *Lam. in Encycl. Meth.* t. 461, f. 3 ; *Lam. Hist.* vi. p. 143, n. 1, ed. *Desh.* viii. p. 353 ; *Desh. in Encycl. Meth.* ii. p. 39. n. 1 ; *Desh. Traité élem. Conch.* t. 82, f. 3, 4.
Cyclostoma planorbulum, *Voigt, in Cuv. Thierr.* iii. p. 177 ; *Sow. Thes.* t. 25, f. 83 ; *Pfr. Ic.* t. 29, f. 16, 17 ; *Petit, in Journ. Conch.* i. p. 43.
Cyclotus planorbulus, *Swains. Malac.* p. 336 ; *Gray, Cat. Cycl.* p. 8, n. 14 (part).
Pterocyclos planorbulus, *Pfr. Consp.* n. 47 ; *Pneum. Mon.* p. 43.

Hab. Java ? Borneo ?

§ 3. *Operculum externally very convex, margin of the whorls forming a spiral horizontal lamina*—Pterocyclos.

4. Pterocyclos Troscheli.

Shell orbiculate-depressed ; whorls 4, slowly increasing, the last one rather dilated anteriorly ; umbilicus very broad ; peristome thickened, reflected, obsoletely sinuate anteriorly and above, with a cucullated wing, which is angulated and deflected anteriorly, adhering to the penult whorl. Operculum convex, horn-coloured. Greatest breadth 20, least br. 18 mill. (*B.*)

Pterocyclos Troscheli, *Bens. in Ann. & Mag.* viii. 1851, *Aug.* t. 5, f. 2 ; *Pfr. Consp.* n. 48 ; *Pneum. Mon.* p. 44.

Hab. Ceylon, Trincomalee (Bland).

5. Pterocyclos anguliferus.

Shell discoidal, solid, smooth, blackish-chestnut-coloured, with irregular white flames ; spire flat ; whorls 5, little convex, the last one not descending anteriorly ; umbilicus broad ; aperture oblique, rather circular, fulvious and pearl-shining inside ; peristome double ; inner edge shortly expanded, scarcely indented above ; external edge white, broadly expanded, dilated above near the penult whorl into a blunt beak, which is deeply excavated beneath. Operculum conic, with 3–4 whorls bearing a spiral lamella, and the apex smooth. Height 6½, greatest breadth 24, least br. 18 mill.

Cyclostoma angulifera, *Souleyet, in Rev. Zool.* 1841, p. 347 ; *Voy. de la Bonite*, t. 30, f. 6–11.
Cyclostoma anguliferum, *Petit, in Journ. Conch.* i. p. 43.
Pterocyclos anguliferus, *Pfr. in Z.* f. *M.* 1847, p. 111 ; 1851, p. 6 ; *Ic.* p. 196, t. 24, f. 3–6 ; *Consp.* n. 49 ; *Pneum. Mon.* p. 44.

Hab. Cochin-China.

6. Pterocyclos tenuilabiatus.

Shell depressed, subdiscoidal, solid, striate, and with transverse impressions on all sides, brownish, marmorated with darker chestnut-coloured angulose stripes; spire flat, rather concave, with the apex a little prominent; whorls $4\frac{1}{2}$, moderately convex, rapidly increasing, the last one rather depressed; umbilicus broad; aperture diagonal, nearly circular; peristome double; internal edge shortly produced, a little indented above; external edge nearly continued, white, with the columellar margin shortly reflected; right margin dilated, expanded; upper margin raised like a cap near the penult whorl. Operc.? Height $6\frac{1}{2}$, greatest breadth 26, least br. 21 mill.

Cyclostoma tenuilabiatum, *Metcalfe, in Proc. Z. S.* 1851.
Pterocyclos tenuilabiatus, *Pfr. Consp.* n. 50; *Pneum. Mon.* p. 45.

Hab. Borneo.

7. Pterocyclos Albersi.

Shell discoidal, rather solid, slightly striate, white, marbled with chestnut-coloured stripes, and with a broad blackish band below the periphery, with a horn-coloured periostraca; spire scarcely raised in the middle; suture deeply channelled; whorls 5, rather flattened, the last one disjoined anteriorly, with a scaly keel above; umbilicus very broad; aperture nearly circular, whitish inside; peristome double; internal edge straight, a little prominent and expanded, deeply indented above; external edge somewhat thickened, expanded, produced above into a beak, which is curved forward, quite disjoined and continued backwards into the channel of the suture. Operculum with a flat smooth apex; spiral lamella of the lower whorls coronated with crowded raised spines. Height 9, greatest breadth 26, least br. 22 mill.

Pterocyclos Albersi, *Pfr. in Z.* f. *M.* 1847, p. 151; *Ic.* p. 197, t. 28, f. 1–5; *Gray, Cat. Cycl.* p. 12, n. 4; *Pfr. Consp.* n. 51; *Pneum. Mon.* p. 45.
Cyclostoma Albersi, *Petit, in Journ. Conch.* i. p. 43.

Locality unknown.

8. Pterocyclos hispidus. B. M.

Shell discoidal, solid, very minutely decussate by the striæ of growth, and crowded, raised, concentric lines, white, covered with a spinulose periostraca of a greenish-brown colour with darker lines; spire flat; whorls $5\frac{1}{2}$, rather depressed, the last one descending anteriorly, bearing at a distance of 7–8 mill. behind the aperture a triangular beak, which is scarcely opened, recurved and touching the suture; umbilicus broad; aperture

oblique, nearly circular, blueish-white inside; peristome double; internal edge a little expanded and incumbent, with a triangular notch above; external edge expanded, dilated above in a flattened cap near the penult whorl. Operc. with the apex flattened, spiral lamella narrow with 3–4 whorls. Height 8, greatest breadth 28, least br. 22½ mill.

Spiraculum hispidum, *Pearson, in Journ. As. Soc.* ii. p. 391, t. 20.
Pterocyclos hispidus, *Bens. in Journ. As. Soc.* v. p. 355; *Ann. & Mag.* 2nd ser. i. p. 346; *Pfr. in Z.* f. *M.* 1851, p. 6; *Consp.* n. 52; *Gray, Cat. Cycl.* p. 12, n. 2; *Pfr. Pneum. Mon.* p. 46.
Pterocyclos Prinsepi, *Pfr. in Z.* f. *M.* 1847, p. 111; *Ic.* p. 195, t. 24, f. 7–10; *Gray, Cat. Cycl.* p. 12, n. 1.
Steganotoma Princepsi, v. d. *Busch. in Phil. Abild.* i. 5, p. 106; *Cycl.* t. 1, f. 6.
Cyclostoma spiraculum, *Sow. Thes.* n. 59, p. 110, t. 31, f. 270–272; *Petit, in Journ. Conch.* i. p. 43.

Hab. India, the Himalayan region; Khasya Hills (Benson).

9. Pterocyclos rupestris. B. M.

Shell depressed, nearly discoidal, rather solid, horn-coloured-whitish, slightly striate, with angular chestnut-coloured stripes above, and a band of the same colour at the periphery; spire nearly flat, prominent in the middle; whorls not quite 6, convex, wrinkled near the suture, which is deeply impressed, the last whorl cylindrical, not descending anteriorly; umbilicus broad; aperture oblique, nearly circular; peristome double; inner edge straight, deeply indented above; outer edge rather expanded, dilated and convex over the incisure. Operculum typical, with a little raised spiral lamina. Height 8, greatest breadth 22, least br. 19 mill.

Pterocyclos rupestris, *Benson, in Journ. As. Soc.* i. p. 11, t. 2; *Ann. & Mag.* 2nd ser. i. p. 346; *Pfr. in Z.* f. *M.* 1851, p. 4; *Ic.* t. 31, f. 3–5; *Consp.* n. 53; *Pneum. Mon.* p. 46; *Gray, Cat. Cycl.* p. 12, n. 3.
Pterocyclos pictus, *Trosch. in Z.* f. *M.* 1847, p. 45; *Pfr. ibid.* p. 111; *Fc.* p. 194, t. 24, f. 21–25; *Gray, Cat. Cycl.* p. 12, n. 5.
Steganotoma picta, *Trosch. in Wiegm. Arch.* f. *Nat.* 1837, i. p. 165, t. 3, f. 12, 13.
Steganotoma pictum, *Philippi, Abild.* i. 5, p. 105; *Cyclost.* t. 1, f. 5.
Cyclostoma . . . *Sow. Conch. Man.* f. 531 ?
Cyclostoma pictum, *Petit, in Journ. Conch.* i. 43.

β. Smaller; height 6½, greatest breadth 14 mill. (*Pfr. Ic.* t. 31, f. 9–11.

Hab. India, Patharghata, province of Bahar.

10. Pterocyclos nanus.

Shell depressed, discoidal, whitish, painted with a peripherical chestnut-coloured band and waving streaks above; spire slightly prominent, darker; whorls $4\frac{1}{2}$, convex, the last one detached above; umbilicus deep and open; aperture oblique, circular; peristome double, with the edges scarcely separated by a slightly-impressed groove; inner edge deeply and straightly indented above; outer edge slightly reflexed, forming, above the sinus, a narrow vaulted wing, which is shortly descending and angulated anteriorly. Operculum? Height 5, breadth 10 mill. (*Benson.*)

Pterocyclos nanus, *Benson, in Ann. & Mag. N. H.* 2nd ser. viii. p. 450; *Pfr. Pneum. Monogr.* p. 47; *Ic.* t. 49, f. 31–33.

Hab. India, the Nilgherries Mountains.

11. Pterocyclos parvus. B. M.

Shell depressed, rather solid, slightly striate, horn-coloured-yellowish, with chestnut-coloured angular stripes above and a denticulated band of the same colour at the periphery; spire nearly flat, with the apex scarcely elevated; whorls $4\frac{1}{2}$, moderately convex, the last one cylindrical, descending anteriorly, paler beneath; umbilicus broad; aperture oblique, circular; peristome double; inner edge shortly produced, emarginate above by a nearly circular sinus; outer edge rather broad, reflected, white, angularly receding, ascending and dilated into the shape of a cap over the sinus. Operc.? Height 5, greatest breadth 14, least br. $11\frac{1}{2}$ mill.

Spiraculum parvum, *Pearson, in Journ. As. Soc.* ii. p. 392, t. 20.
Pterocyclos parvus, *Bens. in Journ. As. Soc.* v. p. 357; *Ann. & Mag.* 2nd ser. i. p. 346; *Pfr. in Z.* f. *M.* 1851, p. 5; *Ic.* t. 31, f. 12–14; *Consp.* n. 54; *Pneum. Mon.* p. 48.
Cyclostoma spiraculum var., *Sow. Thes.* t. 31, f. 273?
Pterocyclos rupestris (part.), *Gray, Cat. Cycl.* 12, n. 3.

Hab. India, the Khasya Hills (Benson).

12. Pterocyclos Cumingi.

Shell depressed, solid, slightly striate, shining, fulvous-yellow, with angular chestnut-coloured stripes, which are broader and darker near the periphery, so as to form two interrupted bands; spire flat; whorls 5, convex, the last one cylindrical, swollen anteriorly next the penult one into an elongated ridge, which is rounded above and surrounded by a furrow; umbilicus very broad; aperture a little oblique, nearly circular, pearly inside; peristome rather simple, white, thickened, reflected, interrupted above by a triangular incisure, and produced into a small inflected tongue. Operc. typical, with a small, blunt nucleus. Height 6, greatest breadth 32, least br. 28 mill.

Pterocyclos Cumingi, *Pfr. in Proc. Z. S.* 1851; and *Z.* f. *M.* 1851, p. 5; *Ic.* t. 31, f. 6–8; *Consp.* n. 55; *Pneum. Mon.* p. 48.

Hab. Ceylon.

13. Pterocyclos bilabiatus.

Shell depressed, nearly discoidal, slightly striate, whitish, with angular chestnut-coloured stripes; spire scarcely raised, with the apex rather blunt, blackish; whorls 5–5½, moderately convex, gradually increasing, the last one cylindrical with a brown band at the periphery; umbilicus broad; aperture oblique, circular; peristome double; inner edge nearly continued, straight, deeply notched above, outer edge vaulted into the shape of a cap near the penult whorl, with the right and basal margins deeply sinuous and undulated. Operc. typical. Height 8½, greatest breadth 20, least br. 17 mill.

Pterocyclos bilabiatus, *Bens. in Zool. Journ.* v. p. 462; *Journ. As. Soc.* v. p. 358; *Pfr. in Z.* f. *M.* 1847, p. 111, 1851, p. 4; *Ic.* p. 193, t. 24, f. 11-14; *Consp.* n. 56; *Gray, Cat. Cycl* p. 13, n. 6; *Pfr. Pneum. Mon.* p. 49.

Cyclostoma bilabiatum, *Sow. Thes.* n. 57, p. 110, t. 25, f. 81, 82; *Petit, in Journ. Conch.* i. p. 43.

Hab. India, Salem, near Madras (Heath, Sowerby).

14. Pterocyclos Blandi.

Shell orbiculate-depressed, whitish, with radiating, undulated, brownish-orange-coloured stripes, and one darker band at the periphery; whorls 4½, increasing rapidly, the last one suddenly dilated into a broad wing anteriorly; umbilicus very broad; aperture oblique; peristome rather duplicate; inner edge thickened, disjoined, and sinuous above; outer edge broadly expanded above, with a wing, which is disjoined, angulate anteriorly, descending, produced over the penult whorl, showing a sinus posteriorly. Greatest breadth 29, least br. 23 mill. (*Bens.*)

Pterocyclos Blandi, *Bens. in Ann. & Mag.* viii. 1851, *Aug.* t. 5, f. 1; *Pfr. Consp.* n. 58; *Pneum. Mon.* p. 49.

Hab. Island of Pulo Susson, near Pulo Penang.

15. Pterocyclos? spiracellum.

Shell suborbiculate, planorboid; spire depressed, pale; whorls 4, rounded, transversely striate, the last one inflate above, then attenuated, and as it were strangulated, with a vaulted varix near the aperture, which is circular; peristome double; inner edge emarginate posteriorly; outer edge reflected, terminated posteriorly into a channel; suture distinct; last whorl bearing a tubular spiraculum near the aperture; umbilicus open, show-

ing the whorls. Operc. circular, spiral, horn-coloured and concave inside, shelly exteriorly, furrowed on the periphery. Height 5, breadth 10 mill. (*A. & R.*)

Cyclostoma spiracellum, *Adams & Reeve, Voy. Samarang. Moll.* p. 56, t. 14, f. 1.
Pterocyclos ? spiracellum, *Pfr. Consp.* n. 59; *Pneum. Mon.* p. 50.

Hab. Borneo.

"A small species, largely umbilicated, belonging to the division Pterocyclos." (*A. & R.*) Compare with Cyclotus rostellatus, n. 44.

16. Pterocyclos ? biciliatus.

Shell orbicular, flattened above, largely umbilicated beneath, very thin, nearly membranaceous, with sharp and hairy transverse striæ, yellowish, painted with angular fulvous stripes; spire depressed; suture very deep; whorls $4\frac{1}{2}$, cylindrical, with two obsolete angles, and two rows of incurved black hairs, the last one deflected; aperture oblique, circular (incomplete); the upper angle bearing a lamina with two channels. Height 7, greatest breadth 14.2, least br. 11.5 mill. (*M.*)

Pterocyclos biciliatus, *Monsf. jav. Moll.* p. 49. t. 20, f. 9.
Pterocyclos ? biciliatus, *Pfr. Consp.* no. 57; *Pneum. Mon.* p. 50.
Cyclostoma biciliatum, *Petit, in Journ. Conch.* i. p. 43.

Hab. India, Birmah.

This shell seems to be very nearly allied to Cyclotus Taylorianus, and perhaps it may be the same species.

III. CRASPEDOPOMA.

Operculum horny, solid; whorls very narrow, with a central nucleus; external plate flat; internal deeply concave, furnished with a circular prominence on the penult whorl. Shell subturbinate, gaping, last whorl a little constricted anteriorly; peristome continuous, simple, receiving the internal prominence of the operculum.

Craspedopoma, *Pfr. in Z.* f. *M.* 1847, p. 48, 111; 1851, p. 137; *Consp.* p. 9; *Gray, Cat. Cycl.* p. 13; *Pfr. Pneum. Mon.* p. 51.

Bolania, *Gray, Syn. Br. Mus.* 1840 et 1842. p. 91 (not described).
Cyclostoma sp., *Lowe.*
Valvata sp., *Menke.*

1. Craspedopoma lucidum. B. M.

Shell with an arcuate, linear, compressed umbilicus, globose-conic, rather solid, striate, lucid, greenish-horn-coloured; spire conic, rather pointed; whorls 5, convex, the last one obsoletely angu-

late, a little disjoined anteriorly, inflated beneath; aperture little oblique, circular; peristome simple, blunt. Operc. typical, brownish-red. Height $5\frac{1}{2}$, greatest breadth $5\frac{1}{3}$, least br. 5 mill.

Cyclostoma lucidum, *Lowe, Faun. Mader.* p. 66, t. 6, f. 40; *Sow. Thes.* n. 19, p. 97, t. 23, f. 20. 21; *Pfr. Ic.* p. 110, n. 111, t. 13, f. 26, 27.
Cyclostoma lucida, *Desh. in Lam. Hist.* viii. p. 369, n. 36.
Valvata mucronata, *Menke, Synops.* ed. ii. p. 139.
Craspedopoma lucidum, *Pfr. in Z.* f. *M.* 1847, p. 111; *Consp.* n. 60; *Gray, Cat. Cycl.* p. 13; *Pfr. Pneum. Mon.* p. 51.
Bolania lucida, *Gray, in Mus. Brit. olim*, 1840.

Hab. Madeira.

2. Craspedopoma Lyonnetianum. B. M.

Shell compressed-pyramidal, rather solid, slightly striate, shining, blackish chestnut-coloured; spire conic, with the apex rather blunt; whorls 5, convex, the last one ascending anteriorly, somewhat disjoined, subcarinate at the periphery, attenuated anteriorly; umbilicus compressed, linear; aperture nearly perpendicular, circular; peristome straight, simple, continuous, shortly affixed. Operc. typical. Height not quite 4, greatest breadth $3\frac{2}{3}$, least br. 3 mill.

Cyclostoma Lyonnetianum (Hygrobium), *Lowe, in Ann. & Mag.* ix.; *Pfr. Ic.* n. 280, t. 38, f. 19–22.
Craspedopoma Lyonnetianum, *Gray, Cat. Cycl.* p. 13, n. 2; *Pfr. Consp.* n. 61; *Pneum. Mon.* p. 52.

Hab. Madeira.

3. Craspedopoma costatum.

Shell rimate, subperforate, globose-conic, thin, very elegantly sculptured with lamelliform ribs, which disappear on the last whorl near the aperture, fuscous-horn-coloured; spire pointed; whorls 5, convex, the last inflated beneath; suture deep; aperture circular; peristome double; outer edge thin, membranous; inner edge slightly receding, thickened, white. Operculum membranaceous, pale. Height 4, breadth 4 mill. (*Shuttl.*)

Cyclostoma (Craspedopoma) costatum, *Shuttleworth, Diagn.* n. *Moll.* n. 1, p. 11.
Craspedopoma costatum, *Pfr. Mon. Pneum.* p. 415.

Hab. The island of Palma.

b. *Operculum horny, thin, without any external shelly layer. Shell conical or depressed; last whorl rounded, without any groove or ridge round the fossils of the axis.* Cyclophorina, *Gray.*

IV. AULOPOMA.

Operculum horny, with many whorls, planorbis-shaped, composed of two plates, betwixt which it has a spiral channel, which is interiorly open on the last whorl. Shell turbinate-depressed, or discoidal, the last whorl disjoined anteriorly; peristome free, straight, continuous, immersed in the circular groove of the operculum.

Aulopoma, *Troschel, in Z.* f. *M.* 1847, p. 43; *Pfr. ibid.* p. 110; 1851, p. 137; *Consp.* p. 9; *Gray, Cat. Cycl.* p. 14; *Pfr. Pneum. Mon.* p. 52.
Cyclostoma sp., *Sowerby, Guerin, etc.*

The outer layer of the operculum generally covers the edge of the peristome of dead shell, but in the living state, when flexible, it can be drawn into cavity like other opercula. (*Gray.*)

1. Aulopoma Itieri. B. M.

Shell depressed, nearly discoidal, solid, slightly striate, whitish, the whole surface being generally covered with a greenish-brown periostraca; spire mucronate, blueish-black; whorls 4–4½, cylindrical, the last one descending and disjoined anteriorly; umbilicus broad; aperture oblique, circular; peristome continuous, straight, sharp. Operc. typical, with 5 distantly striate whorls. Height 11, greatest breadth 22, least br. 18 mill.

Cyclostoma Itierii, *Guérin, in Revue, Zool.* 1847, p. 1; *Petit, in Journ. Conch.* i. p. 43.
Cyclostoma cornu venatorium, *Pfr. Ic.* n. 173, p. 159, t. 22, f. 1–3.
Cyclostoma Hoffmeisteri, *Benson, in Ann. & Mag.* 2nd ser. vii. p. 265.
Aulopoma Hofmeisteri, *Trosch. in Z.* f. *M.* 1847, p. 43; *Gray, Cat. Cycl.* p. 14, n. 4.
Aulopoma cornu venatorium, *Gray, Cat. Cycl.* p. 14, n. 1.
Aulopoma Itierii, *Gray, Cat. Cycl.* p. 14, n. 3; *Pfr. Consp.* n. 62; *Pneum. Mon.* p. 52.

Hab. Ceylon.

2. Aulopoma ? cornu venatorium.

Shell orbicular, depressed, whitish; spire mucronated, with a black apex; volutions 4, ventricose, transversely striated on the upper part, smooth beneath, with a brown spiral line in the middle; suture deep; aperture circular; peritreme thin, acute; umbilicus very large. Height 11, breadth 20 mill. (*Sow.*)

Cyclostoma cornu venatorium, *Sow. Thes.* n. 48, p. 107, t. 24, f. 41–42; *Pfr. Fc.* t. 49, f. 14–16?
Aulopoma cornu venatorium, *Pfr. in Z.* f. *M. Consp.* n. 63; *Pneum. Mon.* p. 53.

Locality unknown.

"This species approaches most nearly in shape to C. planorbulum, Lam.; it may, however, be distinguished by its lip not being at all reflected." A doubtful species, generally considered as identical with the preceding one, from which it seems to be different by its last whorl not being disjoined from the penult one.

3. AULOPOMA HELICINUM.

Shell subdiscoidal, rather thin, striate, pale horn-coloured, with reddish-brown stripes, and one band of the same; spire mucronated, blueish-brown; whorls 4, cylindrical, the last one descending anteriorly and disjoined; aperture oblique, rather circular; peristome straight, thin, sharp. Operculum with the whorls more narrow, than of A. Itierii, convex, and crowdedly folded externally. Height $6\frac{1}{2}$, greatest breadth 13, least br. 10 mill.

Turbo helicinus, *Chemn. Conch. Cab.* ix. P. ii. p. 59, t. 123. f. 1067, 1068.
Turbo helicoides, *Gmel. Syst.* p. 3602, n. 103.
Cyclostoma helicinum, *Pfr. Ic.* n. 26, p. 35, 160, t. 4, f. 5, 6, t. 22, f. 4, 5.
Cyclostoma papua? *Pfr. Nuit. Regist.* p. 85.
Aulopoma helicinum, *Pfr. in Z.* f. *M.* 1847, p. 111; *Consp.* n. 64; *Gray, Cat. Cycl.* n. 14, p. 2; *Pfr. Pneum. Mon.* p. 53.

Hab. Ceylon (Dr. Th. Philippi).

V. CYCLOPHORUS.

Operculum horny, thin, closely whorled, more or less concave externally. Shell globose-turbinate, depressed or discoidal; peristome continuous, expanded or straight.

Cyclophorus, *Montfort, Conch. Syst.* ii. p. 290, 1810; *Blainv. in Dict. Sc. Nat.* xii. p. 290; *Malac.* p. 435; *Desh. in Encycl. Meth.* ii. p. 236; *Pfr. in Z.* f. *M.* 1847, p. 47, 107; 1851, p. 138; *Consp.* p. 10; *Gray, in Proc. Z. S.* 1847, p. 182; *Cat. Cycl.* p. 15; *Pfr. Pneum. Mon.* p. 54.
Annularia *a, Schumacher, Essai*, p. 196, 1817.
Cyclophora, *Swains. Malac.* p. 185, 336, 1840 (part).
Annularia, *Gray, Syn. Brit. Mus.* 1840 & 1842, p. 91.
Aperostoma, *Trosch. in Z.* f. *M.* 1847, p. 44 (part).
Cyclostoma sp., *Auct.*

The very numerous species, which must be referred to this natural genus, may be arranged into the following sections :—

A. Subturbinate.
  1. Peristome expanded.
    a. Axis umbilicated, open.
      α. Shell not carinated . . . . § 1. N. 1–11.
      β. Shell subcarinated or carinated.
        * Keel one, often obsolete . . . § 2. „ 12–25.
        ** Keels or spiral ribs more than one § 3. „ 26–38.
    b. Axis umbilicated, partly covered with a tongue-like process . . . § 4. „ 39–44.
    c. Axis imperforated, or quite covered . § 5. „ 45–46.
  2. Peristome straight . . . . . § 6. „ 47–59.

B. Depressed.
  1. Peristome expanded.
    a. Shell spirally ribbed, or striate . . § 7. „ 60–65.
    b. Shell smooth . . . . . § 8. 66.
  2. Peristome straight.
    a. Thickened . . . . . § 9. „ 67–69.
    b. Thin.
      α. Shell spirally striated, or furrowed . § 10. „ 70–77.
      β. Shell oblique, wrinkled, or foveated . § 11. „ 78–80.
      γ. Shell with simple radiating striæ . § 12. „ 81–85.

§ 1. *Shell subturbinated, not keeled, peristome expanded, axis umbilicated, open.*

1. Cyclophorus Himalayanus.

Shell globose-turbinate, rather solid, with 10–12 blunt spiral ribs and obsolete interposed lines, whitish, with a deciduous periostraca of . . . . colour; spire turbinate, reddish-brown and rather pointed above; whorls 5, moderately convex, the last one ventricose, scarcely compressed around the umbilicus, which is narrow and funnel-shaped; aperture nearly perpendicular, circular; peristome simple, continuous, shortly affixed, brownish-fiery, rather thickened, shortly expanded, somewhat angulated above. Operc? Height 35, greatest breadth 48, least br. 39 mill.

Cyclostoma Himalayanum, *Pfr. in Proc. Z. S.* 1851, p. ; *Ic.* n. 228, t. 33, f. 10, 11.
Cyclophorus Himalayanus, *Pfr. Consp.* n. 65, p. 50; *Pneum. Mon.* p. 55.

Hab. India, the Himalayah Mountains.

2. Cyclophorus speciosus.

Shell depressed-turbinate, solid, with rather undulated, crowded, impressed spiral lines, chestnut-coloured and marbled with

whitish; spire broadly conoidal, rather blunt; whorls 6, moderately convex, the last one very large, girdled at the periphery with a very obsolete white keel, and with many blackish-brown bands beneath; umbilicus narrow; aperture oblique, large nearly circular, somewhat pearly inside; peristome white, broadly expanded, continuous, shortly affixed to the penult whorl, columellar margin reflected. Operc? Height 35, greatest breadth 61, least br. 45 mill.

Cyclostoma speciosum, *Philippi, in Z.* f. *M.* 1847, p. 123; *Pfr. Ic.* n. 184, p. 170, t. 25, f. 1–3.

Cyclophorus speciosus, *Pfr. in Z.* f. *M.* 1847, p. 107; *Consp.* n. 66; *Gray, Cat Cycl.* p. 15, n. 2; *Pfr. Pneum. Mon.* p. 156.

Locality unknown.

3. Cyclophorus Siamensis.

Shell turbinate-depressed, solid, smooth, chestnut-coloured, elegantly painted with angular whitish stripes; spire shortly turbinate, with the apex rather blunt; whorls 5, convex, rather flattened near the deep suture, the last one rounded at the periphery, obsoletely compressed around the funnel-shaped umbilicus; aperture little oblique, large, circular, whitish inside; peristome rather thickened and reflected, yellowish-flesh-coloured, shortly affixed to the penult whorl. Operc? Height 29, greatest breadth 51, least br. 40 mill.

Cyclostoma Siamense, *Sow. Thes. Suppl.* n. 178, p. 158, t. 31, *A.* f. 292, 293; *Pfr. Ic.* n. 331, t. 42, f. 5, 6.

Cyclophorus Siamensis, *Pfr. Consp.* n. 67; *Pneum. Mon.* p. 56.

Hab. Siam.

4. Cyclophorus tuba. B. M.

Shell suborbicular, rather depressed, thin, smooth, whitish, varied and clouded with reddish brown; spire short, rather flattened, acuminated at the apex; volutions 5, flattish, the posterior carinated, the last very large and rounded; aperture very large, circular, expanded, whitish; peritreme whitish, thin, broad, revolute, interrupted over the last volution; umbilicus large. Operculum reddish-horn-coloured. Height 25, breadth 45 mill. (*Sow.*)

Cyclostoma tuba, *Sow. in Proc. Z. S.* 1843, p. 83; *Thes.* n. 91, p. 122, t. 27, f. 129, 130; *Pfr. Ic.* n. 183, p. 169, t. 23, f. 10, 11; *Souleyet, in Voy. Bonite Moll.* t. 30, f. 25–27.

Cyclophorus tuba, *Pfr. in Z.* f. *M.* 1847, p. 107; *Consp.* n. 68; *Gray, Cat. Cycl.* p. 16, n. 3; *Pfr. Pneum. Mon.* p. 57.

β. A little smaller and more depressed, with the last whorl subcarinated at the periphery, and with the peristome not so broadly expanded, scarcely reflected.

Hab. Malacca, Mount Ophir (H. Cuming).

5. Cyclophorus aquila. B. M.

Shell depressed-turbinate, rather solid, nearly smooth, fulvous, with darker marble stripes and a narrow white girdle at the periphery; spire rather raised, with the apex pointed; whorls 5, rather flattened, the last one large, obsoletely angulated; umbilicus of middle size, open; aperture nearly perpendicular, transversely a little dilated, pale fulvid inside; peristome expanded, rather thickened, fulvid, with the margins joined by a thin callus; columellar margin dilated and reflected at its base. Operc. typical. Height 21, greatest breadth 34, least br. 28 mill.

Cyclostoma aquilum, *Sow. in Proc. Z. S.* 1843, p. 61; *Thes.* n. 92, p. 123, t. 27, f. 131; *Pfr. Ic.* n. 5, p. 14, t. 8, f. 1, 2.
Cyclophorus aquila, *Pfr. in Z.* f. *M.* 1847, p. 107; *Consp.* n. 69; *Gray, Cat. Cycl.* p. 16, n. 6; *Pfr. Pneum. Mon.* p. 57.
Cyclostome subtrochiforme, *Souleyet, in Voyage Bonite. Moll.* t. 30, f. 22–24.

β. Larger, passing to C. tuba; height 26, greatest breadth 46 mill.
Cyclostoma aquilum, var., *Pfr. Ic.* t. 2, f. 1, 2.
Cycl. perdix var., *Sow. Thes.* t. 27, f. 128.

Hab. Singapore (H. Cuming); China (Brit. Mus.).

6. Cyclophorus Pearsoni.

Shell depressed-turbinate, smooth, with obsolete spiral striæ, varied and broadly banded with chestnut-brown above, with brownish spiral lines beneath, with a white band at the periphery, and another of blackish-chestnut-colour immediately below it; spire depressed-conoidal, with the apex pointed; whorls 5, moderately convex, the last one large, convex beneath; aperture scarcely oblique, large, circular, blueish inside; peristome expanded, reflected on all sides, pale orange-coloured; the margin joined by a short callus; umbilicus rather narrow, open, more narrow interiorly. Height 25, greatest breadth 42, least br. 33 mill. (*B.*)

Cyclostoma Pearsoni, *Benson, in Ann. and Mag.* 28, ser. viii. 1851, p. 185; *Pfr. Fc.* n. 411, t. 49, f. 34–36.
Cyclophorus Pearsoni, *Pfr. Consp.* n. 70; *Pneum. Mon.* p. 58.

Hab. India, the Khasya Hills.

7. Cyclophorus volvulus. B. M.

Shell globose-conic, solid, smooth, fulvid, varied with chestnut-coloured stripes and spots; spire conoidal, with the apex blunt; whorls 5, rounded, the last one very obsoletely angulated at the periphery, with a broad blackish-chestnut-coloured band below the periphery; umbilicus of middle size, funnel-shaped; aperture oblique, nearly perpendicular, blueish-whitish within; peristome whitish, double; internal edge continuous, thickened,

rather produced; external edge reflected, emarginated near the penult whorl. Operculum, with a lamellar margin to the whorls. Height 23, greatest breadth 37, least br. 29 mill.

Helix volvulus, *Müll. Hist. Verm.* ii. p. 82, n. 280; *Born. Test.* p. 379, t. 14, f. 23, 24; *Gmel. Syst.* p. 3638, n. 91.

Turbo lituus, *Gmel. Syst.* p. 3589, n. 111.

Lituus, *Martyn, Fig. of non-descr. Shells*, t. 27, *Ed. Chenu.* (*Bibl. Conch.* ii.) p. 21, t. 8, f. 1.

Cyclophorus volvulus, *Montf. Conch.* ii. p. 291, t. 73; *Pfr. in Z. f. M.* 1847, p. 107; *Consp.* n. 71; *Gray, Cat. Cycl.* p. 16, n. 7; *Pfr. Pneum. Mon.* p. 58.

Cyclostoma volvulus, *Lam. in Encycl. Méth.* t. 461, f. 5; *Lam. Hist.* vi. p. 143, n. 2, *Ed. Desh.* viii. p. 353 (part); *Desh. in Enc. Méth.* ii. p. 39, n. 2 (part); *Reeve, Conch. Syst.* ii. t. 185, f. 21; *Sow. Thes.* n. 89, p. 121, t. 26, f. 126; *Pfr. Fc.* n. 19, p. 27, t. 3, f. 1, 2; *Grat. in Act. Bord.* xi. p. 435, t. 3, f. 1.

Cyclostome trochiforme, "*Lamarck.*" *Soul. in Voy. de la Bonite, Moll.* t. 30, f. 18–21.

Cyclostoma lævigatum, *Voigt, in Cuvier, Thierr.* iii. p. 178.

Cyclostoma variata, *Boys, MSS. in Mus. Brit.*

Cyclophora volvula, *Swains. Malac.* p. 336.

Lister, Hist. t. 50, f. 48.

β. With the inner peristome elongated forward.

Cyclostoma volvulus, var., *Pfr. Ic.* t. 45, f. 1, 2.

γ. Smaller; height 16, greatest breadth 27, least br. 22 mill.

Hab. India, Pulo Condore.

8. Cyclophorus involvulus. B. M.

Shell turbinate-depressed, solid, furnished above with rather crowded, obtusely-raised, spiral ribs, pale fulvous, marbled with chestnut-coloured stripes and spots; spire short, rather acuminated; whorls 5, convex, the last one broad, with a pale peripherical band, and another broad blackish band, which is sprinkled with white below the periphery, convex, and whitish beneath; umbilicus middle-sized, open; aperture slightly oblique, rather circular, obsoletely angulated above, orange-coloured inside; peristome double; inner edge continuous, straight, rather thickened, fiery-red; external edge paler, reflected. Operc. typical. Height 20, greatest breadth 34, least br. 28 mill.

Helix involvulus, *Müll. Hist. Verm.* ii. p. 84, n. 281; *Gmel. Syst.* p. 3638, n. 92; *Dillw. Descr. Catal.* ii. p. 890.

Helix volvulus, *Wood, Ind.* t. 32, f. 7.

Turbo volvulus, *Chemn. Conch. Cat.* ix. P. ii. p. 57 (part), t. 123, f. 1066.

Cyclostoma volvulus, *Lam. Hist. & Desh.* (part); *Voigt, in Cuv. Thierr.* iii. p. 178.

Cyclostoma involvolus, *Gray, in Mus. Brit.; Bens. in Zool. Journ.* v. p. 462; *Sow. Thes.* n. 82, p. 119, t. 26, f. 114–116; *Conch. Man.* f. 304; *Pfr. Ic.* n. 20, p. 28, t. 4, f. 3, 4.
Cyclophora involvula, *Swains. Malac.* p. 336.
Cyclophorus involvulus, *Pfr. in Z. f. M.* 1847, p. 108; *Consp.* n. 72; *Gray, Cat. Cycl.* p. 17. n. 8; *Pfr. Pneum. Mon.* p. 59.
Seba, Thes. iii. t. 40, f. 18, 19.
Lister, Hist. t. 75, f. 75.

Hab. India; common from Sicrigully, Bahar, Patharghata.

Note. This shell is found sometimes with a sharp peripherical keel; also with a compressed keel and a large channel near the suture.

9. Cyclophorus picturatus.

Shell turbinate-depressed, solid, rather smooth, whitish, painted with chestnut-coloured reticulate stripes and flames; spire shortly conoidal, with the apex blunt; whorls 4½, moderately convex, the last one furnished above with several obtuse spiral ribs, painted with a denticulated band below the periphery, white around the umbilicus, which is middle-sized, deep; aperture slightly oblique, rather circular; peristome rather simple, thickened, very much protracted, continuous, shortly affixed, with the columellar margin dilated, expanded. Operc.? Height 16, greatest breadth 29, least br. 23 mill.

Cyclostoma picturatum, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 363, t. 45, f. 13, 14.
Cyclophorus picturatus, *Pfr. Consp.* n. 73, p. 51; *Pneum. Mon.* p. 61.
Locality unknown.

10. Cyclophorus Ibyatensis.

Shell turbinate-depressed, solid, smooth, slightly striate, shining, chestnut-coloured, marked with white spots and bands; spire turbinate, with the apex rather pointed, horn-coloured; whorls 5, moderately convex, the last one somewhat depressed near the suture, painted with large square or triangular white spots, very obsoletely angulated at the periphery, white around the middle-sized funnel-shaped umbilicus; aperture little oblique, nearly circular; peristome somewhat thickened, expanded, with the margins approaching each other, joined by a continuous callus. Operc.? Height 14, greatest breadth 23, least br. 18 mill.

Cyclostoma Ibyatense, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 366, t. 45, f. 19, 20.
Cyclophorus Ibyatensis, *Pfr. Consp.* n. 74, p. 51; *Pneum. Mon.* p. 61.
Hab. The Island of Ibyat, Bashee group.

11. Cyclophorus? atramentarius.

Shell turbinate, rather thin, smooth, shining, blueish, painted with chestnut-coloured flames and angular streaks; spire conic, with the apex rather pointed, blackish; whorls 6, convex, the last one rather flattened beneath; umbilicus narrow, scarcely pervious; aperture oval-rounded, chestnut-coloured inside; peristome white, double; inner edge continuous, shortly protracted; outer edge expanded into the plane of the aperture, shortly interrupted above. Operc.? Height 14, breadth 16 mill.

Cyclostoma atramentarium, *Sow. Thes.* n. 105, p. 128, t. 30, f. 236: *Pfr. Ic.* n. 146, p. 139, t. 18, f. 17, 18.
Cyclotus? atramentarius, *Gray, Cat. Cycl.* p. 8, n. 13.
Cyclophorus? atramentarius, *Pfr. Consp.* n. 75; *Pneum. Mon.* p. 61.

Locality unknown.

b. Shell subturbinate, with a single keel, often obsolete; axis umbilicated, open, simple.

12. Cyclophorus aurantiacus.

Shell depressed-turbinate, solid, blackish-chestnut-coloured, marbled with fulvous and whitish, closely striate and obsoletely decussated with crowded spiral lines; spire short, with the apex rather pointed; whorls 5½, convex, the last one very large, somewhat depressed, more or less distinctly keeled at its periphery, pale beneath, with chestnut spiral lines; umbilicus broad, funnel-shaped; aperture rather oblique, large, nearly circular, blueish inside; peristome continuous, shortly affixed to the penult whorl, thickened and expanded, flesh-coloured. Operculum with the margin of the whorls lamellar. Height 32, greatest breadth 58, least br. 46 mill.

Turbo volvulus var., *Chemn. Conch. Cat.* ix. t. 123, f. 1064, 1065.
Helix volvulus, γ, *Müll. Hist. Verm.* ii. p. 83.
Annularia aurantiaca, *Schumacher, Essai*, p. 196.
Cyclostoma pernobilis, *Gould, in Proc. Bost. Soc.* i. 1843, p. 140; *Bost. Journ.* 1844, p. 458, t. 24, f. 11.
Cyclostoma pernobile, *Pfr. Ic.* n. 21, p. 30, t. 3, f. 15 (from *Gould*).
Cyclostoma aurantiacum, *Pfr. Ic.* n. 22, p. 31, 167, t. 4, f. 8, 9, t. 23, f. 4, 5.
Cyclophorus aurantiacus, *Pfr. in Z. f. M.* 1847, p. 107, n. 1; *Consp.* n. 78; *Gray, Cat. Cycl.* p. 15, n. 1; *Pfr. Pneum. Mon.* p. 62.

Hab. India, Tavoy and Mergui, British Burmah.

13. Cyclophorus Bensoni.

Shell globose-turbinate, solid, minutely decussated with oblique and crowded spiral lines, whitish-fulvous, marbled with chest-

nut; spire turbinate, rather blunt; whorls 5, convex, the upper ones uniformly dirty brownish, the following ones painted with flames, the last one large, obsoletely keeled, bearing on the keel a blackish band, and on both sides unequal chestnut-coloured bands, pale and rather compressed round the umbilicus, which is narrow and funnel-shaped; aperture rather oblique, nearly circular, milk-white inside; peristome continuous, fiery orange-red, shortly affixed, shortly and convexly reflected. Operc.? Height 26, greatest breadth 43, least br. 34 mill.

Cyclostoma Bensoni, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 225, t. 32, f. 11–13.

Cyclophorus Bensoni, *Pfr. Consp.* n. 79, p. 52; *Pneum. Mon.* p. 63.

Locality unknown.

14. Cyclophorus Borneensis.

Shell depressed-turbinate, rather thin, striate, sculptured with very fine and crowded spiral lines, fulvous above, with chestnut-coloured stripes and spots; spire conoidal, with the apex rather pointed; suture flat, bordered; whorls 5, scarcely convex, the last one sharply keeled, marked with a broad chestnut-coloured band, which is spotted with white below the keel, rather compressed round the middle-sized umbilicus; aperture oblique, rather truncated-oval; peristome shortly expanded, not thickened, with the margins somewhat distant, united by a thin deposit. Operculum reddish, concave externally. Height 20, greatest breadth 40, least br. 33 mill.

Cyclostoma Borneense, *Metcalfe, in Proc. Z. S.* 1851; *Pfr. Ic.* n. 384, t. 47, f. 1–3.

Cyclophorus Borneensis, *Pfr. Consp.* n. 80; *Pneum. Mon.* p. 63.

Hab. Borneo.

15. Cyclophorus perdix.

Shell depressed-turbinate, rather thin, obsoletely girdled with raised lines, deeply chestnut-coloured, conspersed with white points and marked, near the suture, with a band, which is articulated with brown, and whitish; spire short, pointed; whorls 5, somewhat flattened, the last one large, keeled, convex beneath; umbilicus middle-sized, open; aperture scarcely oblique, large, nearly circular, blueish-white; peristome broadly expanded and reflected, with the margins almost united. Operculum horny-reddish. Height 19, greatest breadth 39, least br. 27 mill.

Cyclostoma perdix, *Brod. and Sow. in Zoolog. Journ.* v. p. 50; *Sow. Thes.* n. 90, p. 122, t. 27, f. 127; *Pfr. Ic.* n. 55, p. 60, t. 8, f. 7–9; *Monsf. Jav. Moll.* p. 54, t. 8, f. 1.

Cyclostoma variegatum, *Val. MSS.*; *Philippi, Abbild.* i. 5, p. 104, t. 1, f. 3.
Cyclophorus perdix, *Pfr. in Z.* f. *M.* 1847, p. 107, n. 4; *Consp.* n. 81; *Gray, Cat. Cycl.* p. 16, n. 4; *Pfr. Pneum. Mon.* p. 63.

Hab. India, Tenasserim; and Java?

16. CYCLOPHORUS ZOLLINGERI.

Shell umbilicate, orbiculate-conic, transversely substriate, brownish, with white points and spots; spire prominent, with the nucleus transversely strongly striate; suture linear; whorls 4½–5, rather flat, marked above with small oblique ribs, which are crossed rectangularly by the striæ of growth; last whorl furnished with an obtuse keel, which is articulated with white and brownish, rather flattened beneath, with the back band obtuse; aperture broadly orbicular, violaceous, with the margin rather thickened, expanded. Operc. obscurely spiral, smooth inside, with the centre prominent. Height 17–21, greatest breadth 23–31, least br. 21–25 mill. (*M.*)

Cyclostoma Zollingeri, *Monsf. Jav. Moll.* p. 55, t. 7, f. 2.
Cyclophorus Zollingeri, *Pfr. Consp.* n. 82; *Pneum. Mon.* p. 64.

Hab. Java.

17. CYCLOPHORUS PORPHYRITICUS.

Shell depressed, conoidal, thin, sculptured with very crowded, distinct, raised, somewhat undulate spiral lines, whitish, marked above with dark chestnut, more pale beneath, sprinkled with angular spots, which are larger along the suture, and with two dark bands, which are articulated with white, the one of which at the periphery, the other below; spire short, with the apex pointed; suture scarcely distinct; whorls 4½, rather flattened, the last one angulate, nearly flat beneath; umbilicus middle-sized; aperture large, ovate-circular, grayish-white; peristome thin, expanded, and reflected, with the margins convergent, united by a thin deposit, columellar margin narrower, slightly emarginate. Operc.? Height 18, greatest breadth 31, least br. 24½ mill. (*B.*)

Cyclostoma porphyriticum, *Benson, in Ann. and Mag.* 2nd ser. viii. 1851, p. 187; *Pfr. Ic.* n. 415, t. 50, f. 22–24.
Cyclophorus porphyriticus, *Pfr. Consp.* n. 83; *Pneum. Mon.* p. 65.

Hab. East India.

18. CYCLOPHORUS EXPANSUS.

Shell turbinate, rather globular, solid, with crowded spiral striæ, opaque, marbled above with chestnut and whitish; spire conoidal, with the apex rather pointed; whorls 5, moderately

convex, the last one more convex, dilated, slightly keeled at its periphery, painted beneath with narrow chestnut-coloured bands; umbilicus narrow, open; aperture nearly perpendicular, rather circular; peristome rather simple, continuous, shortly affixed, pale orange-coloured, flatly expanded all round into the plane of the aperture, with the edge slightly reflected. Operc.? Height 19, greatest breadth 30, least br. 22 mill.

Cyclostoma expansum, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 290, t. 39, f. 20, 21.
Cyclophorus expansus, *Pfr. Consp.* n. 84, p. 52; *Pneum. Mon.* p. 65.

Hab. Tavoy, Burmah.

19. Cyclophorus Cantori.

Shell subglobose-conoidal, with very numerous, slight, spiral, striæ, fulvid, with a grayish-white periostraca, which is marbled, spotted, and lineated with reddish-brown and girdled usually with one peripherical blackish band; spire conoidal, pointed; whorls 5, moderately convex, the upper ones obliquely striate, the last whorl obsoletely angulate; umbilicus rather narrow, open; aperture nearly perpendicular, large, circular, with the margins united by a thin deposit; peristome expanded, rather flattened and reflected. Operc. typical. Height 14½–19, greatest breadth 24–30, least br. 19–23 mill. (*B.*)

Cyclostoma Cantori, *Benson, in Ann. and Mag.* 2nd. ser. viii. 1851, p. 186; *Pfr. Ic.* n. 414, t. 50, f. 4–6.
Cyclophorus Cantori, *Pfr. Consp.* n. 85; *Pneum. Mon.* p. 65.

Hab. The Island of Penang (Cantor).

20. Cyclophorus Menkeanus.

Shell turbinate, solid, marbled with chestnut and white, with crowded spiral lines above, which are slightly decussated by the striæ of growth; spire short, conoidal, blunt; whorls 5, convex, the last one angulated at its periphery, with a peripherical white band, and another, which is broader and blackish-chestnut-coloured, immediately below it, more smooth beneath, white round the middle-sized umbilicus; aperture oblique, nearly circular, pale orange-coloured inside; peristome double; inner edge continuous, wrinkled, very much protracted at the upper and right side; external edge thickened, expanded, angulated above, interrupted near the penult whorl. Operc.? Height 20, greatest breadth 30, least br. 28 mill.

Cyclostoma Menkeanum, *Philippi, in Z.* f. *M.* 1847, p. 123; *Pfr. Ic.* n. 185, p. 171, t. 28, f. 6–8.

Cyclophorus Menkeanus, *Pfr. in Z.* f. *M.* 1847, p. 107; *Consp.* n. 86; *Gray, Cat. Cycl.* p. 18, n. 10; *Pfr. Pneum. Mon.* p. 66.

Hab. Ceylon, Point de Galle (Benson).

21. Cyclophorus amœnus.

Shell depressed-turbinate, solid, smooth, white, very elegantly painted with numerous chestnut-coloured fulvous lines, which are interrupted by arrow-shaped spots; spire conoidal, blunt; whorls $4\frac{1}{2}$, moderately convex, the last one inflated above, with a rather compressed keel at its periphery, below which is placed a darker band, convex beneath, white round the narrow funnel-shaped umbilicus; aperture little oblique, nearly circular; peristome double; inner edge continuous; straightly produced; outer edge thick, expanded, scarcely indented on the penult whorl. Operc.? Height 18, greatest breadth 30, least br. 24 mill.

Cyclostoma amœnum, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 362, t. 45. f. 11, 12.
Cyclophorus amœnus, *Pfr. Consp.* n. 87, p. 52; *Pneum. Mon.* p. 66.

Locality unknown.

22. Cyclophorus turgidus.

Shell turbinate-globose, solid, striate, and minutely foveate, fulvous, with chestnut-coloured bands and interrupted lines, and usually with arrow-shaped spots along the suture; spire turbinate, with the apex rather blunt; whorls 5, convex, the last one inflated above, surrounded below the middle, with a cord-like keel and with a broader blackish band, rather flattened beneath, somewhat compressed round the umbilicus, which is narrow, funnel-shaped; aperture oblique, rounded, scarcely angular; peristome double; inner edge continuous; outer edge thickened, expanded, shortly interrupted near the penult whorl. Operc. pale horn-coloured. Height 16–18, greatest breadth 22–27, least br. $18\frac{1}{2}$–23 mill.

Cyclostoma crassum, *Pfr. in Proc. Z. S.* 1851, *Jul.* Not *Adams.*
Cyclostoma turgidum, *Pfr. Ic.* n. 241, t. 35, f. 15, 16.
Cyclophorus turgidus, *Pfr. Consp.* n. 88, p. 53; *Pneum. Mon.* p. 67.

Hab. Liew Kiew and Ibyat, Bashee group.

23. Cyclophorus punctatus. B. M.

Shell depressed-turbinate, rather thin and smooth (with very minute oblique striæ), pale yellowish-horn-coloured, painted with chestnut-coloured points and arrow-shaped spots, which are arranged in single rows; spire short, with the apex

rather pointed, blackish; whorls 5, convex, the upper ones often with waving streaks, the last one ventricose, rather angulate at its periphery and marked with a dark chestnut-coloured band, which is denticulated on both sides; umbilicus narrow, open; aperture rather oblique, nearly circular, whitish inside; peristome shortly expanded all round, with the margins united by a thin deposit. Operc.? Height 18, greatest breadth 25, least br. 20 mill.

Cyclostoma punctata, *Grateloup*, *Act. Soc. Bord.* xi. p. 440, t. 3, f. 10.
Cyclostoma punctatum, *Pfr. Ic.* n. 31, p. 40, t. 5, f. 12, 13.
Cyclostoma irroratum, *Sow. in Proc. Z. S.* 1843, p. 61; *Thes.* n. 94, p. 123, t. 27. f. 134, 135.
Cyclophorus punctatus, *Pfr. in Z.* f. *M.* 1847, p. 107, n. 11; *Consp.* n. 89; *Gray*, *Cat. Cycl.* p. 18, n. 11; *Pfr. Pneum. Mon.* p. 67.

Hab. Ceylon (Grateloup), China (Sowerby).

β. Shell marked all over with chestnut-coloured flames and stripes; height 16, greatest breadth 24, least br. 19 mill.

Hab. Philippine Island, Basilan (H. Cuming).

24. Cyclophorus denselineatus, Pfr.

Shell globose-turbinate, solid, very minutely decussate by oblique and impressed spiral striæ, scarcely shining, pale fulvous, with brown spots and interrupted bands; spire turbinate, blackish towards the summit; apex pointed; whorls 5, scarcely convex, the last one more convex above, obtusely carinate below the middle, rather flattened beneath, pale round the umbilicus, which is narrow and going through; aperture little oblique, nearly circular, transversely dilated; peristome thickened, scarcely expanded, with the margins approximate, united by a short callus, columellar margin rather reflected. Operc. flat, reddish-horn-coloured. Height 16, greatest breadth 23½, least br. 20 mill.

Cyclostoma denselineatum, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 365, t. 45, f. 17, 18.
Cyclophorus denselineatus, *Pfr. Consp.* n. 90, p. 53; *Pneum. Mon.* p. 68.

Locality unknown.

25. Cyclophorus marmoratus.

Shell conoidally semiglobose, solid, smooth, whitish, rather reticulated with fulvous spots and streaks; spire convex-conoidal, blackish towards the summit; apex rather blunt; whorls 5, moderately convex, the last one obsoletely angulated at its

periphery, scarcely convex beneath; umbilicus middle-sized, open, rather irregular; aperture nearly perpendicular, rather circular, white inside; peristome continuous, shortly affixed, double; inner edge short; outer edge blunt, rather straight, slightly angulated above, with the columellar margin somewhat thickened. Operc.? Height 8, greatest breadth 11½, least br. 10 mill.

Cyclostoma marmoratum, *Fer. Mus; Pfr. Ic.* n. 301, t. 40, f. 9, 10.
Cyclophorus? marmoratus, *Pfr. Consp.* n. 91; *Pneum. Mon.* p. 68.

Locality unknown.

c. Shell subturbinate, with two or more keels, or spiral ribs; axis umbilicated, open.

26. Cyclophorus eximius.

Shell turbinate-depressed, solid, keeled, whitish, with brown angular stripes, covered with a chestnut-coloured fulvous periostraca; spire shortly turbinate, with the apex rather pointed; whorls 5, moderately convex, furnished above with three obtuse spiral ribs, minutely decussated by spiral and oblique striæ; last whorl very large, blackish-chestnut-coloured and ventricose below the keel, which is rather sharp, somewhat compressed round the umbilicus, which is rather broad and funnel-shaped: aperture little oblique, nearly circular; peristome pale flesh-coloured-yellowish, double; inner edge continuous, expanded, affixed to the outer edge, which is rather interrupted, expanded into the plane of the aperture, with the columellar margin dilated, somewhat reflected. Operc.? Height 32, greatest breadth 62, least br. 47 mill.

Cyclostoma eximium, *Mousson, Jav. Moll.* p. 53, t. 7, f. 1; *Pfr. Ic.* n. 227, t. 33, f. 1, 2.
Cyclophorus eximius, *Pfr. Consp.* n. 92; *Pneum. Mon.* p. 69.

Hab. India, Khasya Hills (Mus. Cuming); Java? (Mousson).

27. Cyclophorus Ceylanicus. B. M.

Shell depressed-turbinate, solid, decussated by very numerous sharp raised ridges, between which are placed smaller ones, and very crowded longitudinal striæ, dark chestnut-coloured, painted with narrow waving white streaks; spiral conoidal, with the apex rather blunt; whorls 5, convex, increasing rapidly, the last one marked with a broad blackish band below the chief carina, which is situated nearly on the middle, and is sharper than the others, rather compressed, and straw-yellow round the funnel-shaped umbilicus; aperture rather oblique, nearly circular, blueish-white inside; peristome thickened, white, with the margins united above by a thin deposit into

a channelled angle, right margin expanded, columellar margin reflected. Operc. thin, rather concave externally. Height 24, greatest breadth 37, least br. 30 mill.

Cyclostoma Ceylanicum, *Sow. MSS.*; *Pfr. Ic.* p. 171, n. 186, t. 29, f. 1–3.

Cyclostoma Indicum, *Sow. Thes. Suppl.* n. 190, p. 163*, t. 31, *B.* f. 320, 321.

Cyclophorus Ceylanicus, *Pfr. Consp.* n. 93; *Pneum. Mon.* p. 70.

Hab. Ceylon.

28. Cyclophorus stenomphalus.

Shell somewhat top-shaped, solid, sculptured above with numerous strong spiral ridges, between which are situated smaller ones; fulvous, with more or less distinct dark marble painting, and an articulated band along the suture; spire turbinate, with the apex pointed; whorls $5\frac{1}{2}$, convex, the last one furnished with a stronger keel at the periphery, ventricose and spirally striate beneath; umbilicus very narrow, scarcely going through; aperture large, nearly circular; peristome double; inner edge pale orange-coloured; outer edge expanded, rather thickened, dilated and angulated above, with the columellar margin thickened, shortly reflected. Operc.? Height 24, greatest breadth 35, least br. 28 mill.

Cyclostoma stenomphalum, *Pfr. in Z.* f. *M.* 1846, p. 44; *Ic.* n. 54, p. 59, t. 8, f. 5, 6.

Cyclophorus stenomphalus, *Pfr. in Z.* f. *M.* 1847, p. 107, n. 8; *Consp.* n. 94; *Gray, Cat. Cycl.* p. 17, n. 9; *Pfr. Pneum. Mon.* p. 70.

Variety: Cyclostoma Aurora, *Benson, in Ann. & Mag.* 2nd ser. viii. p. 186 (*Pfr. Ic.* t. 50, f. 11–13.)

Hab. India, Khasya Hills.

29. Cyclophorus Jerdoni.

Shell depressed-turbinate, decussated above by very crowded, raised and wrinkled lines and oblique striæ, more slightly decussated beneath; colour whitish, painted with angular chestnut-coloured flames above, and till the middle of the lower surface, surrounded by a pale peripheral band, which is articulated with alternate stripes; spire depressed, with the apex prominent; whorls 5, convex, the last one depressed and flattened near the suture, which is distinct; rather angulated at its periphery; umbilicus middle-sized, deep, open, showing two whorls; aperture scarcely oblique, nearly circular, angulate above; peristome rather expanded, thickened, whitish, with the margins united by a thick deposit, columellar margin rather reflected. Operc.? Height 20, greatest breadth 35, least br. 28 mill. (*B.*)

Cyclostoma Jerdoni, *Benson, in Ann. & Mag.* 2nd ser. viii. 1851, p. 185: *Pfr. Ic.* n. 413, t. 50, f. 1–3.
Cyclophorus Jerdoni, *Pfr. Consp.* n. 95; *Pneum. Mon.* p. 71.

Hab. India. The Neilgherries mountains (Jerdon).

30. Cyclophorus zebrinus.

Shell depressed-turbinate, rather solid, keeled, sculptured with oblique, somewhat scaly striæ, and with several raised spiral ribs on the upper side, fulvous, irregularly painted with broad chestnut-coloured spots and waving whitish stripes; spire turbinate, blunt; whorls 5, moderately convex, the last one broad, convex beneath, rather compressed round the umbilicus, which is narrow and funnel-shaped; aperture rather oblique, circular, blueish inside; peristome white, double; inner edge continuous, expanded; outer edge thickened, reflected, affixed. Operc.? Height 21, greatest breadth 34, least br. 27 mill.

Cyclostoma zebrinum, *Benson, in Journ. As. Soc.* v. 1836, p. 355; *Sow. Thes. Suppl.* p. 157*, n. 176, t. 31, *A.* f. 287, 288; *Pfr. Ic.* n. 240, t. 34, f. 21–23.
Cyclophorus zebrinus, *Pfr. Consp.* n. 96; *Pneum. Mon.* p. 71.

Hab. India. Khasya Hills (Benson).

31. Cyclophorus tigrinus. B. M.

Shell turbinate, solid, striate, chestnut-coloured, marked with yellowish oblique streaks and angulated flames; spire raised, with the apex rather pointed; whorls 6, convex, with several spiral ribs, of which three usually are stronger, last whorl smooth beneath; umbilicus middle-sized, open; aperture oblique, nearly circular, yellowish-inside; peristome thickened with concentric furrows, shortly reflected, with the margins united by an equal deposit, columellar margin dilated and expanded over the umbilicus. Operculum thin. Height 21, greatest breadth 32, least br. 27 mill.

Cyclostoma tigrinum, *Sow. in Proc. Z. S.* 1843, p. 30; *Thes.* n. 100, p. 126, t. 29, f. 201–204; *Reeve, Conch. Syst.* ii. t. 183, f. 10; *Pfr. Ic.* n. 56, p. 61, t. 8, f. 13–16, t. 16, f. 17–20.
Cyclophorus tigrinus, *Pfr. in Z.* f. *M.* 1847, p. 107, n. 13; *Consp.* n. 97; *Gray, Cat. Cycl.* p. 18, n. 13; *Pfr. Pneum. Mon.* p. 72.

Hab. The Philippine Islands (H. Cuming).

Seven varieties of this beautiful shell are noticed by Mr. Sowerby.

32. Cyclophorus luridus.

Shell depressed-turbinate, rather thin, with crowded spiral striæ, and about five blunt spiral ribs above, shining, brownish-ful-

vous; spire turbinate, with the apex grayish, rather pointed; whorls 5, moderately convex, the last one obtusely angulated and marked with a white band at its periphery, paler beneath, with obsolete bands; umbilicus narrow, open; aperture large, somewhat oblique, circular with a slight angle; peristome simple, thin, with the margins distant, right margin shortly expanded; columellar margin rather dilated, vaulted and expanded. Operc.? Height 19, greatest breadth 27, least br. 23 mill.

Cyclostoma luridum, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 364, t. 45, f. 15, 16.
Cyclophorus? luridus, *Pfr. Consp.* n. 99, p. 53; *Pneum. Mon.* p. 73.

Locality unknown.

This species may be perhaps referred to the genus Leptopoma.

33. Cyclophorus leucostomus.

Shell depressed-turbinate, solid, obliquely and very closely striate, furnished with very numerous blunt spiral ridges, several of which are stronger; colour chestnut-fulvous, irregularly striped with angular white flames; spire turbinate, with the apex rather blunt; whorls $4\frac{1}{2}$, convex, the last one white round the umbilicus, which is narrow, but open; aperture somewhat oblique, nearly circular, white inside; peristome simple, rather thickened, white, shortly affixed, with the margins united above in a little distinct angle; columellar margin dilated, expanded. Height 16, greatest breadth 26, least br. 21 mill.

Cyclostoma leucostomum (Cyclophorus), *Pfr. in Proc. Zool. Soc.* 1852; *Ic.* n. 398, t. 48, f. 14–16.
Cyclophorus leucostomus, *Pfr. Pneum. Mon.* p. 73.

Locality unknown.

34. Cyclophorus zebra. B. M.

Shell perforate, globose-conic, thick, sculptured with spiral lines and several thread-like raised keels, marbled with brown and whitish; spire turbinate, blackish towards the summit, with the apex rather pointed; whorls 5, convex, the penult one somewhat bunchy, the last one girdled with one white band; aperture oblique, ovate-circular, whitish inside; peristome nearly straight, doubled, thickened externally, with the margins united by a sinuate deposit; columellar margin reflected, often half covering the very narrow umbilicus. Operc. pale. Height 15, greatest breadth 17, least br. 15 mill.

Cyclostoma zebra, *Grateloup, in Act. Bord.* xi. p. 441, t. 3, f. 9; *Pfr. Ic.* n. 138, p. 132, t. 13, f. 31, 32.

Cyclostoma Philippinarum var., *Sow. Thes.* t. 29, f. 205, 207.
Cyclophorus zebra, *Pfr. in Z.* f. *M.* 1847, p. 107, n. 16; *Consp.* n. 100; *Gray, Cat. Cycl.* p. 19, n. 15; *Pfr. Pneum. Mon.* p. 74.

β. Smaller, fulvous, with the ridges smaller, blunt, one of which, below the middle, is usually stronger; peristome nearly simple, expanded. Height 9, greatest breadth 12, least br. 10 mill. (*Pfr. Ic.* t. 43, f. 19, 20.)

γ. Smaller, whitish, with interrupted chestnut-coloured streaks, and often with one brown or fulvous basal band; peristome more distinctly doubled and expanded. (*Pfr. Ic.* t. 43, f. 21, 22.)

Hab. The Philippine Islands.

35. Cyclophorus Philippinarum.

Shell perforate, conic, solid, sculptured above with crowded spiral ridges, fulvous, with chestnut-coloured spots and interrupted streaks, and with two white reddish-brown articulated bands, one of which runs along the suture, and the other at the periphery; spire conic, rather pointed; whorls 6, scarcely convex, the last one somewhat angulated, rather flattened and smooth beneath; aperture oval, whitish inside; peristome straight, rather thickened, with the margins distant, united by a deposit; columellar margin dilated in the middle towards the outer side. Operc. typical. Height 9, greatest breadth 10, least br. 9 mill.

Cyclostoma Philippinarum, *Sow. in Proc. Z. S.* 1842, p. 83 (part); *Spec. Conch.* f. 180–183 ?; *Thes.* p. 125, n. 99, t. 29, f. 206; *Pfr. Ic.* p. 42, n. 33, t. 5, f. 17, 18; t. 13, f. 32–34.
Cyclophorus Philippinarum, *Pfr. in Z.* f. *M.* 1847, p. 107, n. 17; *Consp.* n. 101; *Gray, Cat. Cycl.* p. 19, n. 16; *Pfr. Pneum. Mon.* p. 74.

Hab. The Philippine Islands (H. Cuming).

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36. Cyclophorus Guimarasensis. B. M.

Shell subglobose-conoidal, rather thin, slightly striate, chestnut-coloured, spotted with yellowish and articulated with the same along the suture; spire short, rather pointed; whorls 5, convex, the last one angulated above by several obsolete spiral ridges, keeled at its periphery, convex and uniformly dark brown beneath; umbilicus narrow, scarcely going through; aperture nearly circular, somewhat pearly inside; peristome rather thin, white internally, shortly expanded, with the margins approximate; columellar margin strongly arcuate, rather reflected. Operc. ? Height 12, greatest breadth 16, least br. 14 mill.

Cyclostoma Guimarasense, *Sow. Thes.* p. 131, n. 115, t. 31, f. 274, 275; *Pfr. Ic.* p. 99, n. 96, t. 12, f. 8, 9.

Leptopoma ? Guimarasense, *Pfr. in Z.* f. *M.* 1847, p. 109, n. 13.
Cyclophorus Guimarasensis, *Gray, Cat. Cycl.* p. 18, n. 14; *Pfr. Consp.* n. 102; *Pneum. Mon.* p. 75.

Hab. The Philippine island Guimaras (H. Cuming).

37. Cyclophorus turbinatus. B. M.

Shell depressed-turbinate, rather solid, sculptured with very crowded spiral striæ and several obsolete ridges, fulvous, with a reddish-brown articulated band along the suture, which is moderately impressed; spire conoidal, with the apex pointed, horn-coloured; whorls 6, convex, somewhat angulated, the last one rather flattened beneath; umbilicus middle-sized, open; aperture oblique, nearly circular; peristome white, double; inner edge shortly produced; outer edge shortly expanded, with the margins united into an angle; upper margin somewhat dilated forward. Operc. typical. Height $8\frac{1}{2}$, greatest breadth 14, least br. 12 mill.

Cyclostoma helicoides, *Sow. in Proc. Z. S.* 1843, p. 65; *Thes.* p. 127, n. 103, t. 30, f. 245, 246. Not *Grateloup.*
Cyclostoma turbinatum, *Pfr. in Z.* f. *M.* 1846, p. 38; *Ic.* p. 100, n. 97, t. 13, f. 17, 18.
Cyclophorus turbinatus, *Pfr. in Z.* f. *M.* 1847, p. 107, n. 18; *Consp.* n. 103; *Gray, Cat. Cycl.* p. 19, n. 17; *Pfr. Pneum. Mon.* p. 75.

Hab. The Philippine island Bohol (H. Cuming).

38. Cyclophorus ? triliratus.

Shell globose-turbinate, thin, chestnut-coloured, with paler spots and stripes, and with yellow flames along the suture, partially covered with a longitudinally wrinkled hairy periostraca; spire conic, pointed; whorls $5\frac{1}{2}$, moderately convex, increasing rapidly, the penult one bearing two, the last whorl three thread-like fringed ridges, of which one is on the upper side, the second at the periphery, and the third near below the second; umbilicus narrow, open; aperture oblique, nearly circular, peristome rather simple, shortly expanded, whitish-callous internally, with the margins approximate, joined by callus. Operc. ? Height 6, greatest breadth 8, least br. 7 mill.

Cyclostoma triliratum, *Pfr. Ic.* n. 386, t. 47, f. 8–10.
Cyclophorus ? triliratus, *Pfr. Consp.* n. 104, p. 53; *Pneum. Mon.* p. 76.

Hab. Labuan (Gruner).

§ 4. *Shell subturbinate; peristome expanded; axis umbilicated, partly covered with a tongue-like process.*

39. Cyclophorus validus. B. M.

Shell depressed-turbinate, thick, rather smooth, with numerous obsolete spiral ridges above, chestnut-coloured, with oblique

angulated yellow streaks; spire conoidal, blunt; whorls 5, convex, the last one rather coarsely eccentrically striate beneath; aperture oblique, nearly circular, blueish-white inside; peristome white or orange-coloured, thickened and somewhat expanded, with the margins angularly united by a thin deposit; columellar margin free, dilated and reflected over the umbilicus, which is very narrow. Operc. typical, with the margin of the whorls lamellar. Height 26, greatest breadth 40, least br. 33 mill.

Cyclostoma validum, *Sow. in Proc. Z. S.* 1842, p. 82; *Thes.* p. 123, n. 93, t. 27, f. 132, 133; *Pfr. Ic.* p. 89, n. 85, t. 11, f. 9, 10, t. 16, f. 15, 16.

Cyclophorus validus, *Pfr. in Z.* f. *M.* 1847, p. 107, n. 5; *Consp.* n. 105; *Gray, Cat. Cycl.* p. 16, n. 5; *Pfr. Pneum. Mon.* p. 77.

Hab. The Philippine islands Leyte, Luzon, Samar, and Mindanao (H. Cuming).

40. Cyclophorus indicus. B. M.

Shell turbinate-conic, solid, sculptured with numerous slightly-raised spiral ridges, whitish, marbled with brown and brownish-red; spire turbinate, rather pointed; whorls $5\frac{1}{2}$, convex, the last one more distinctly keeled below the middle and marked with a blackish band, rather smooth beneath; aperture somewhat oblique, nearly circular; peristome double; inner edge orange-coloured, shortly expanded; outer edge white, expanded, triangularly dilated above, with the columellar margin dilated, reflected, half covering the narrow umbilicus. Height 25, greatest breadth 38, least br. 32 mill.

Cyclostoma indica, *Desh. in Bélanger Voy.* p. 415, t. 1, f. 4, 5; *Desh. in Lam. Hist.* viii. p. 363, n. 28.

Cyclostoma indicum, *Müll. Synops.* p. 38; *Pfr. Ic.* n. 229, t. 33, f. 3, 4.

Cyclophorus indicus, *Pfr. Consp.* n. 106; *Pneum. Mon.* p. 77.

Hab. The Island of Elephanta, near Bombay.

41. Cyclophorus linguiferus. B. M.

Shell depressed-turbinate, thick, obsoletely spirally striate, fulvous, with angular brown spots; spire rather raised, with the apex blunt; whorls 5, convex, the last one ventricose beneath; umbilicus middle-sized, open; aperture nearly perpendicular, circular, milk-white inside; peristome rather thickened, doubled, broadly bordered with fulvous internally, with the upper margin scarcely expanded; columellar margin dilated into a semilunar lamina, which is narrowly protracted downward. Operc. typical, with five nearly equal volutions. Height 22, greatest breadth 32, least br. 25 mill.

Cyclostoma linguiferum, *Sow. in Proc. Z. S.* 1843, p. 31 ; *Thes.* p. 125, n. 98, t. 29, f. 198 ; *Pfr. Ic.* p. 168, n. 181, t. 23, f. 1–3.
Cyclophorus linguiferus, *Pfr. in Z.* f. *M.* 1847, p. 107, n. 10 ; *Consp.* n. 107 ; *Gray, Cat. Cycl.* p. 19, n. 19 ; *Pfr. Pneum. Mon.* p. 78.

Hab. The Philippine Island of Bohol (H. Cuming).

42. Cyclophorus canaliferus. B. M.

Shell depressed-turbinate, solid, sculptured above and beneath with crowded spiral striæ, and with 7–8 blunt spiral ridges above, chestnut-coloured, spotted with white, and bearing an articulated white band along the suture, which is deeply channelled ; with a whitish peripherical band, below which the shell is uniformly chestnut-coloured, pale beneath ; spire shortly raised, rather blunt ; whorls 5, convex, the last one rather disjoined ; umbilicus middle-sized, open ; aperture small, rather oblique, nearly circular, shining and whitish inside ; peristome thickened, shortly reflected, continuous, with the columellar margin expanded into a free, rather semicircular lamina. Operc. typical. Height 18, greatest breadth 26, least br. 22 mill.

Cyclostoma canaliferum, *Sow. in Proc. Z. S.* 1843, p. 81 ; *Spec. Conch.* f. 195, 196 ; *Thes.* p. 115, n. 71, t. 27, f. 140, 141 ; *Pfr. Ic.* p. 40, n. 32, t. 5, f. 14-16.
Cyclophorus canaliferus, *Pfr. in Z.* f. *M.* 1847, p. 107, n. 14 ; *Consp.* n. 108 ; *Gray, Cat. Cycl.* p. 19, n. 18 ; *Pfr. Pneum. Mon.* p. 78.

β. Pale, spotted along the suture with chestnut-brown, and banded with the same below the middle.
γ. Pale yellowish, with the spire reddish, and the last whorl marked with a single chestnut-coloured basal band.
δ. With the lamina of the columellar margin less dilated, not semicircular.

Hab. The province Tayabas, Island of Luzon (H. Cuming) ; var. δ, Borneo.

43. Cyclophorus lingulatus. B. M.

Shell somewhat depressed-conoidal, rather thin, nearly smooth, chestnut-coloured, with white articulated bands along the suture and at the periphery ; spire short, acuminate ; whorls 5, scarcely convex, the last one angulated above by 3–4 blunt spiral ridges, usually sharp-keeled at its periphery, convex beneath ; umbilicus middle-sized, funnel-shaped ; aperture scarcely oblique, rather circular, blueish inside ; peristome continuous, usually double ; inner edge sharp, scarcely prominent ; outer edge thickened, with the left margin surrounded with a wing, which is dilated

above in a tongue-shaped lamina. Operc. typical, rather flat. Height 16, greatest breadth 21, least br. 18 mill.

Cyclostoma lingulatum, *Sow. in Proc. Z. S.* 1843, p. 64; *Thes.* p. 126, n. 101, t. 29, f. 208–210; *Pfr. Ic.* p. 148, n. 182, t. 23, f. 6–10.

Cyclophorus lingulatus, *Pfr. in Z.* f. *M.* 1847, p. 107, n. 15; *Consp.* n. 109; *Gray, Cat. Cycl.* p. 20, n. 20; *Pfr. Pneum. Mon.* p. 79.

Hab. The Philippine Islands Siquijor, Bohol, Zebu (H. Cuming).

44. Cyclophorus fulguratus.

Shell depressed-turbinate, solid, obliquely substriate, very closely decussated under the lens, white, very elegantly painted above with angulated chestnut-coloured streaks; spire turbinate, with the apex rather blunt, horn-coloured; whorls 5, convex, the last one rounded, with a white peripherical band, below which is another of blackish chestnut-colour; white round the umbilicus, which is narrow and scarcely going through; aperture slightly oblique, rather circular, grayish and shining inside; peristome simple, fulvous, interrupted with the margins united by a thin deposit; right and basal margin equally expanded; columellar margin dilated and expanded over the umbilicus. Operc.? Height 19, greatest breadth 29, least br. 23 mill.

Cyclostoma fulguratum, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 361, t. 45, f. 9, 10.

Cyclophorus fulguratus, *Pfr. Consp.* n. 110, p. 54; *Pneum. Mon.* p. 80.

Hab. Ava.

§ 5. *Shell subturbinate; peristome expanded; axis imperforated or quite covered.*

45. Cyclophorus turbo. B. M.

Shell top-shaped, rather thin, nearly smooth, white or yellowish, marbled with chestnut-coloured spots and stripes; spire turbinate, with the apex rather pointed; whorls 5, moderately convex, the last one angulated, sometimes distinctly keeled, rather flat beneath; aperture oblique, roundish, rather quadrangular, whitish inside; peristome thickened, slightly reflected, white, with the margins distant, united by a very thin callus; columellar margin expanded above into a lamina, which is quite appressed on and covers the umbilicus; basal margin terminating towards the columella into a prominent knot. Operculum yellowish-horny. Height 16, greatest breadth 25, least br. 21 mill.

Trochus turbo, *Chemn. Conch. Cab.* ix. 2, p. 53, t. 122, f. 1059.
Helix turbo, *Gmel. Syst.* p. 3642, n. 232.

Cyclostoma turbo, *Sow. Thes.* n. 75, p. 116, t. 25, f. 102, 103; *Pfr. Ic.* n. 148, p. 140, t. 19, f. 4, 5; *Jay, Catal.* 1850, p. 260, n. 6014.
Cyclostoma maculosa, *Jay, Catal.* 139, p. 122, t. 7, f. 9, 10.
Cyclophorus turbo, *Pfr. in Z.* f. *M.* 1847, p. 108, n. 19; *Consp.* n. 111; *Gray, Cat. Cycl.* p. 20, n. 21; *Pfr. Pneum. Mon.* p. 80.

Hab. India, Tranquebar, and Coromandel (Chemnitz), Sumatra (Sowerby, Gray), Nicobar (Mörch).

46. Cyclophorus ictericus.

Shell globular-conic, solid, fulvid-yellowish, sculptured with slight and crowded spiral ridges; spire conic, with the apex subtruncate; whorls 5, moderately convex, the last as high as the spire, furrowed more deeply beneath; aperture rather oblique, ovate-round, of the same colour inside; peristome rather thickened, expanded, with the margins joined by a callus, which has a semilunar slope; columellar margin expanded above into a vaulted, reflected lamina, covering the umbilicus. Operc.? Height 18, greatest breadth 22, least br. 16½ mill.

Cyclostoma ictericum, *Sow. Thes.* n. 113, p. 131, t. 31, f. 268, 269; *Pfr. Ic.* n. 150, p. 142, t. 19, f. 8, 9.
Cyclophorus? ictericus, *Pfr. in Z.* f. *M.* 1847, p. 108, n. 20; *Consp.* n. 112; *Gray, Cat. Cycl.* p. 20, n. 22; *Pfr. Pneum. Mon.* p. 81.

Locality unknown.

§ 6. *Shell subturbinate; peristome straight.*

47. Cyclophorus lutescens.

Shell depressed-conoidal, solid, sculptured with oblique thread-like striæ, silk-shining, brownish-yellowish; spire shortly conoidal, with the apex rather pointed; suture deep, simple; whorls 4½, convex, enlarging rapidly, last not descending; umbilicus middle-sized, deep; aperture scarcely oblique, roundish-ovate; peristome simple, straight, continuous, shortly affixed, slightly angulated above. Operculum membranaceous, pale horn-coloured. Height 12, greatest breadth 20, least br. 15½ mill.

Cyclostoma lutescens, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 345, t. 43, f. 12–14.
Cyclophorus lutescens, *Pfr. Consp.* n. 76, p. 51; *Pneum. Mon.* p. 82.

Hab. Brazils.

This shell resembles very much Cyclotus translucidus.

48. Cyclophorus Wahlbergi. B. M.

Shell depressed-conoidal, thin, coarse, with hair-like striæ, not shining, greenish-horn-coloured; spire shortly conoidal, rather blunt; suture deep, simple; whorls 4, convex, increasing rapidly,

last not descending; aperture oblique, ovate-roundish, somewhat pearly within; peristome simple, straight, sharp, with the margins approximate, right margin strongly curved. Operculum very thin, horny-yellowish. Height 8, greatest breadth 15, least br. 12 mill.

Cyclostoma Wahlbergi, *Benson, MSS.; Pfr. Ic.* n. 418, t. 50, f. 17–19.
Cyclophorus Wahlbergi, *Pfr. Pneum. Mon.* p. 416.

Hab. Natal.

This species is very similar to Cyclotus translucidus and Cyclophorus lutescens.

49. Cyclophorus Amboinensis.

Shell turbinate-depressed, solid, smooth, chestnut-coloured-fulvous, sprinkled with white spots forming an interrupted band at the periphery; spire convexly conoidal, rather blunt; whorls $4\frac{1}{2}$, convex, the last one rounded, paler beneath; umbilicus narrow, open; aperture rather oblique, nearly circular, pale inside; peristome simple, somewhat thickened, almost imperceptibly expanded, with the margins united above into a slight angle. Operc.? Height 10, greatest breadth 18, least br. 15 mill.

Cyclostoma Amboinense, *Pfr. in Proc. Z. S.* 1852; *Ic.* n. 400, t. 48, f. 20–22.
Cyclophorus Amboinensis, *Pfr. Pneum. Mon.* p. 82.

β. Smaller, chestnut-coloured, with indistinct pale stripes and bands; height $8\frac{1}{2}$, greatest breadth 14, least br. $11\frac{1}{2}$ mill. (*Pfr. Ic.* t. 48, f. 23, 24.)

Hab. Amboina.

50. Cyclophorus? cœloconus.

Shell turbinate, thin, sculptured with crowded and rough radiating striæ, olivaceous-yellowish, with a single reddish-brown band below the periphery, and waving radiating streaks; spire conoidal, with the apex rather pointed; suture well impressed; whorls $4\frac{1}{2}$, very convex, last cylindrical; aperture oblique, ovate circular; peristome thin, sharp; umbilicus deep, showing all the whorls. Operc.? Height 9, greatest breadth 13, least br. 11 mill. (*Bens.*)

Cyclophorus cœloconus, *Benson, in Annals & Mag.* 2nd ser. viii. 1851, p. 189; *Pfr. Ic.* n. 416, t. 50, f. 9, 10.
Cyclophorus? cœloconus, *Pfr. Consp.* n. 113; *Pneum. Mon.* p. 83.
Hab. India, the Neilgherries Mountains (Jerdon).

51. Cyclophorus Apiæ.

Shell pyramidal, rough, wrinkled by crowded oblique plaits, and girdled with irregular raised spiral lines, opaque, greenish-ash-

gray; spire convexly conoidal, with the apex pointed; suture middle; whorls 5, scarcely convex, the last one descending, rounded, compressed beneath round the narrow umbilicus; aperture oblique, nearly circular; peristome rather continuous, shortly affixed, simple, straight. Operc. horny, obsoletely spiral, concave externally, convex and shining internally. Height 9, greatest breadth $10\frac{1}{2}$, least br. 10 mill.

Cyclostoma plicatum, *Gould, in Proc. Bost. Soc.* 1847, p. 204; *Exped. Shells*, p. 38; ed. 1851, p. 103, f. 118; *Pfr. Ic.* n. 302, t. 40, f. 13, 14. Not *Verneuil.*

Cyclostoma Apiæ, *Récluz, in Journ. Conch.* 1851, ii. p. 213, t. 6, f. 10, 11.

Cyclostoma pulverulentum, *Philippi in litt.*

Cyclophorus plicatus, *Pfr. Consp.* n. 114.

Cyclophorus Apiæ, *Pfr. Pneum. Mon.* p. 83.

Hab. Pacific Islands, Upolu.

52. Cyclophorus strigatus.

Shell conoidally semiglobular, rather solid, sculptured with sharp concentric ridges, opaque, greenish or reddish white; spire convex-conoidal, rather pointed; suture deep; whorls 5, little convex, the last one receding, slightly striate beneath, rather flat, slightly keeled round the rather wide umbilicus; aperture oblique, circular; peristome simple, continuous, shortly affixed, straight, blunt. Operc.? Height 8, greatest breadth 12, least br. $10\frac{2}{3}$ mill.

Cyclostoma strigatum, *Gould, in Proc. Bost. Soc.* 1847, p. 204; *Exped. Shells*, p. 38, ed. 1851, p. 102, f. 117; *Pfr. Ic.* n. 303, t. 40, f. 15, 16.

Cyclophorus strigatus, *Pfr. Consp.* n. 115; *Pneum. Mon.* p. 83.

Hab. Upolu.

53. Cyclophorus tiara.

Shell solid, turbinate, rough, distorted, dirty-whitish, widely umbilicated; whorls 5, loose, rounded, with spiral ridges; upper whorls waved and closely decussated between the ridges by the striæ of growth; aperture circular; peristome simple. Height $\frac{1}{2}$, breadth $\frac{3}{4}$ inch. (*G.*)

Cyclostoma tiara, *Gould, in Proc. Bost. Soc.* 1847, p. 204; *Exped. Shells*, p. 37, ed. 1851, p. 101, f. 116.

Cyclophorus tiara, *Pfr. Consp.* n. 116; *Pneum. Mon.* p. 84.

Hab. Upolu.

54. Cyclophorus? obligatus.

Shell small, thick, nearly globular, ash-gray, narrowly perforate, girdled on both sides with equal sharp furrows and slight ribs,

decussated by very minute striæ of growth ; spire pointed ; whorls 5, rounded ; aperture small, ovate ; peristome simple, thick. Height $\frac{3}{8}$, breadth $\frac{5}{16}$ inch. (*G.*)

Cyclostoma obligatum, *Gould, in Proc. Bost. Soc.* 1847, p. 205 ; *Exped. Shells*, p. 38, ed. 1851, p. 104, f. 119.
Cyclophorus ? obligatus, *Pfr. Consp.* n. 117 ; *Pneum. Mon.* p. 84.

Hab. The Island of Matea.

55. Cyclophorus parvus. B. M.

Shell depressed-turbinate, rather thin, slightly striate, with 4 or 5 obsolete keels, fulvid-whitish, with radiating brownish streaks ; spire turbinate, with the apex rather pointed, horny ; whorls 5–6, convex, the last one somewhat depressed, usually furnished with a more distinct keel round the funnel-shaped umbilicus ; aperture oblique, nearly circular ; peristome rather simple, straight, with the margins united by a short deposit, which is somewhat emarginate ; right margin forward, arcuate, prominent. Operc. horny, thick. Height $5\frac{1}{2}$, greatest breadth 9, least br. $7\frac{1}{2}$ mill.

Cyclostoma parvum, *Sow. in Proc. Z. S.* 1843, p. 66 ; *Thes.* n. 29, p. 101, t. 31, f. 254, 255 ; *Pfr. Ic.* n. 98, p. 100, t. 13, f. 15, 16.
Cyclophorus parvus, *Gray, Catal. Cycloph.* p. 23, n. 37 ; *Pfr. Consp.* n. 118 ; *Mon.* p. 85.

β. Smaller, brownish ; height 3, greatest breadth 5, least br. 4 mill.

Hab. The Philippine islands Zebu and Panay (H. Cuming).

56. Cyclophorus ? flavus. B. M.

Shell conically globular, thick, yellow, closely sculptured with spiral furrows ; spire conoidal, rather pointed ; whorls $4\frac{1}{2}$, convex, the last one ventricose ; umbilicus extremely narrow, not going through ; aperture ovate, slightly angulated above ; peristome simple, blunt, with the margins joined by a deposit on the penult whorl ; columellar margin flattened. Operc. horny (*Brod.*) Height 7, greatest breadth 8, least br. $6\frac{1}{2}$ mill.

Cyclostoma flavum, *Broderip, in Proc. Z. S.* 1832, p. 59 ; *Müll. Synops.* p. 38 ; *Sow. Thes.* n. 55, p. 109, t. 24, f. 70 ; *Pfr. Ic.* n. 14, p. 23, t. 3, f. 9–11.
Chondropoma flavum, *Gray, Catal. Cycl.* p. 57, n. 7.
Cyclophorus ? flavus, *Pfr. Consp.* n. 119 ; *Mon.* p. 85.

Hab. The Island Annaa (H. Cuming).

57. Cyclophorus ? euomphalus.

Shell subglobose-depressed, solid, smooth, white, painted with indistinct brownish spots, which are on the last whorl arranged

into two obsolete rows; spire short, conoidal, rather pointed; whorls 4, convex, last rounded, marked with two spiral ridges round the narrow umbilicus, the outer of which is crenulated, and the inner terminates externally in a very conspicuous knot; aperture scarcely oblique, nearly circular; peristome thick, blunt, angulated above and on the left side. Operc.? Height 6, greatest breadth 8, least br. 7 mill.

Cyclostoma euomphalum, *Philippi, in Z.* f. *M.* 1851, p. 30; *Pfr. Ic.* n. 338, t. 42, f. 27–30.

Cyclophorus? euomphalus, *Pfr. Consp.* n. 120; *Pneum. Mon.* p. 86.

Locality unknown.

58. Cyclophorus margarita.

Shell perforate, globose-conic, rather solid, smooth, slightly shining, reddish, amber-coloured; spire conic, with the apex rather pointed, blood-red; whorls 5, moderately convex, the last one rather rounded; aperture rather oblique, ovate; peristome not continuous, simple, straight, with the columellar margin strongly arcuate, rather thickened. Height 6, greatest breadth 7, least br. 6 mill.

Cyclostoma margarita, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 235, t. 34, f. 9, 10.

Cyclophorus ? margarita, *Pfr. Consp.* n. 121, p. 54; *Pneum. Mon.* p. 86.

Hab. The Island of Rapa, Pacific Ocean.

59. Cyclophorus Cytora. B. M.

Shell minute, trochiform, rather solid, brown, closely and uniformly spirally striated, crossed by slight wrinkles; spire conical, nearly as high as broad, with the apex subacute; whorls 5½, moderately convex, the last rounded and convex in front; aperture diagonal, nearly circular; peristome simple, straight, thickened internally, with the margins approximate, united by a thin callus. Operc. horny, of a few rapidly-enlarging whorls? Height 2, breadth 2½ mill.

Cyclophorus Cytora, *Gray, in Proc. Z. S.* 1849, p. 67; *Catal. Cycl.* p. 23, n. 38; *Pfr. Consp.* n. 77; *Pneum. Mon.* p. 86.

Hab. New Zealand, Auckland (Greenwood).

§ 7. *Shell depressed, spirally ribbed or striated; peristome expanded.*

60. Cyclophorus oculus capri. B. M.

Shell turbinate-depressed, solid, closely spirally striated and angulated by 4-5 blunt spiral ridges, marbled above with

whitish and chestnut-colour, showing below the periphery a broad blackish band, which is interrupted by white spots. pale beneath ; spire short, with the apex rather blunt ; whorls 5–6, convex, flattened along the suture ; umbilicus broad, open ; aperture rather oblique, nearly circular, somewhat pearly inside ; peristome thickened, reflected, pale orange-cloured, slightly emarginated on the penult whorl. Operc. typical. Height 29, greatest breadth 52, least br. 40 mill.

Helix oculus capri, *Linn. Syst.* ed. x. p. 768, n. 573 ; *Mus. Lud. Ulr.* p. 664, n. 363 (*Rumph. Mus.* t. 27, f. 0) ; *Syst.* ed. xii. p. 1242, n. 657 (*Argenv. Conch.* t. 11, f. *T.*) ; *Schræt. Einl.* ii. p. 125, n. 3 ; *Gmel. Syst.* p. 3615, n. 6.

Helix oculus capri, *Wood, Ind.* t. 32, f. 7.

Cyclostoma oculus capri, *Gray, in Mus. Brit.; Reeve, Conch. Syst.* t. 184, f. 11 ; *Sow. Thes.* n. 73, p. 115, t. 25, f. 96 ; *Pfr. Ic.* n. 18, p. 26, t. 3, f. 5, 6 ; *Mouss. Jav. Moll.* p. 52, t. 6, f. 2.

Cyclostoma Rafflesii, *Brod. & Sow. in Zool. Journ.* v. p. 50.

Cyclostoma indicum, *Phil. Abbild.* i. 5, p. 103, t. 1, f. 2, not *Desh.* nor *Sow.*

Cyclophorus oculus capri, *Pfr. in Z.* f. *M.* 1847, p. 108, n. 23 ; *Consp.* n. 122 ; *Gray, Cat. Cycl.* p. 20, n. 23 ; *Pfr. Pneum. Mon.* p. 87.

Hab. Java.

61. Cyclophorus semisulcatus. B. M.

Shell turbinate-depressed, rather solid, marked above with 7–8 obtusely-raised keels, with crowded spiral striæ beneath, whitish, marbled above with brownish, showing below the periphery a single chestnut-coloured band, which often is paler towards the base ; spire short, rather acuminate, with the apex blunt ; whorls 5, convex, depressed near the suture, the last one angulated round the wide funnel-shaped umbilicus ; aperture oblique, subcircular, shining, and blueish-white inside ; peristome rather thickened, shortly expanded, white, with the margins joined into an angle by a continuous callus ; columellar margin slightly reflected. Operc. solid, with the margin of the whorls lamellar. Height 22, greatest breadth 43, least br. 33 mill.

Cyclostoma semisulcatum, *Sow. in Proc. Z. S.* 1843, p. 63 ; *Thes.* n. 96, p. 124, t. 25, f. 99 ; *Pfr. Ic.* n. 81, p. 86, t. 11, f. 1, 2.

Cyclophorus semisulcatus, *Pfr. in Z.* f. *M.* 1847, p. 108, n. 24 ; *Consp.* n. 123 ; *Gray, Cat. Cycl.* p. 20, n. 24 ; *Pfr Pneum. Mon.* p. 88.

Hab. Malacca.

62. Cyclophorus Woodianus. B. M.

Shell orbiculate-depressed, solid, sculptured on both sides with crowded spiral lines, and on the upper side with several more

raised spiral ridges, chestnut-coloured, with whitish marble-painting above, marked along the suture with a broad white and brown articulated band, and with another white band on the periphery ; dark brown beneath, pale round the broad and open umbilicus ; spire short, with the apex rather acuminate ; whorls 5, convex, depressed and slightly channelled along the suture ; aperture nearly circular, blueish inside, with the white band translucent ; peristome thickened, white, shortly expanded, with the margins joined by a continued callus, forming a slight angle on the penult whorl. Operc. thin, with lamellar edges of the whorls. Height 14, greatest breadth 30, least br. 24 mill.

Cyclostoma Woodiana, *Lea, in Trans. Am. Phil. Soc.* 1841, vii. p. 465, t. 12, f. 19.
Cyclostoma Luzonicum, *Sow. in Proc. Z. S.* 1842, p. 80 ; *Spec. Conch.* f. 133 ; *Thes.* n. 70, p. 114, t. 27, f. 136, 137.
Cyclostoma Gironnieri, *Souleyet, in Rev. Zool.* 1842, p. 101 ; *Voy. Bonite, Moll.* t. 30, f. 12–17.
Cyclostoma Woodianum, *Pfr. Ic.* n. 46, p. 53, t. 7, f. 1–3.
Cyclophorus Woodianus, *Pfr. in Z.* f. *M.* 1847, p. 108, n. 28 ; *Consp.* n. 126 ; *Gray, Cat. Cycl.* p. 21, n. 26 ; *Pfr. Pneum. Mon.* p. 88.

Hab. Luzon (H. Cuming).

63. Cyclophorus Charpentieri.

Shell depressed-turbinate, rather solid, sculptured above with close set spiral striæ and 4–5 blunt thread-like ridges, yellowish, with horny-brown marble paintings, and along the suture with a series of rather square chestnut-coloured spots, and with a broad brown band below the peripherical keel ; spire shortly turbinate, with the apex rather blunt ; whorls 4½, enlarging rapidly, the last one somewhat depressed, nearly smooth beneath ; umbilicus middle-sized ; aperture oblique, rather circular, slightly angular above, flesh-coloured inside ; peristome yellowish or reddish, continuous, shortly affixed, produced anteriorly into a concentrically-striated tube. Height 15, greatest breadth 28, least br. 23 mill.

Cyclostoma Charpentieri, *Mousson. Jav. Moll.* p. 56, t. 6, f. 3.
Cyclostoma involvulus, *var. ? Pfr. Ic.* p. 30, t. 8, f. 10–12.
Cyclophorus Charpentieri, *Pfr. Consp.* n. 127 ; *Pneum. Mon.* p. 89.

Hab. Java.

Note. This shell differs from C. involvulus by its more depressed shape ; the spiral ridges are more raised, the umbilicus wider, the aperture smaller, &c. It is more turbinate than C. Woodianus, and has more distinct keels, the umbilicus is smaller,

the aperture more oblique, and the inner edge of the peristome is produced into a tube, which is elongate on the right, and shorter on the left side.

64. Cyclophorus appendiculatus.

Shell depressed, solid, sculptured with crowded raised spiral lines, 4–5 of which are a little stronger; whitish, with brownish marble painting, with a series of large, rather square, chestnut-coloured spots along the channelled suture, and with a pale band above the keel, which is not very distinct, and articulated with brown spots; spire very shortly conoidal, with the apex rather blunt, horny; whorls $4\frac{1}{2}$, enlarging rapidly, the last one broadly depressed near the suture; umbilicus wide, open; aperture oblique, circular; peristome continuous, shortly affixed, equally expanded all round, with the left margin expanded into a tongue-shaped appendix. Height 15, greatest breadth, 34, least br. 27 mill.

Cyclostoma appendiculatum, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 360, t. 45, f. 7, 8.
Cyclostoma canaliferum, *var. Sow. Thes.* t. 27, f. 142?
Cyclophorus appendiculatus, *Pfr. Consp.* n. 128, p. 54; *Pneum. Mon.* p. 90.

Hab. Philippine Islands.

65. Cyclophorus Bairdi, Pfr.

Shell depressed, nearly discoidal, solid, with close set spiral striæ, fulvid-yellowish, painted with very numerous oblique angular chestnut-coloured stripes; spire scarcely raised, a little prominent in the middle; whorls $4\frac{1}{2}$, moderately convex, the last one somewhat depressed, very obtusely angulated and marked with a chestnut-coloured band at its periphery; umbilicus open, occupying a little more than one-third of the whole diameter; aperture oblique, roundish, rather angular, white inside; peristome rather simple, continuous, shortly affixed, slightly expanded, and produced above into an indistinct angle. Height 9, greatest breadth 26, least br. 20 mill.

Cyclostoma Bairdi, *Pfr. in Proc. Z. S.* 1852; *Ic.* n. 399, t. 48, f. 17–19.
Cyclophorus Bairdi, *Pfr. Pneum. Mon.* p. 91.

Hab. Ceylon.

§ 8. *Shell depressed, smooth; peristome expanded.*

66. Cyclophorus guttatus.

Shell depressed, solid, smooth, shining, light chestnut-coloured dropped with white, rather triangular spots; spire scarcely

raised, with the apex brownish, rather mucronate; whorls $4\frac{1}{2}$, moderately convex, enlarging rapidly, slightly striate near the impressed suture; umbilicus moderately wide, open; aperture somewhat oblique, circular, whitish inside; peristome rather double, inner edge scarcely distinct, external edge expanded and dilated above into a short, tongue-shaped appendix, which is affixed to the penult whorl. Height 9, greatest breadth 19, least br. 15 mill.

Cyclostoma guttatum, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 346, t. 43, f. 15, 16.
Cyclophorus? guttatus, *Pfr. Consp.* n. 129, p. 55; *Pneum. Mon.* p. 91.

Locality unknown.

§ 9. *Shell depressed; peristome straight, thickened.*

67. Cyclophorus maculosus.

Shell depressed, subdiscoidal, rather solid, slightly wrinkled, and marked above with several obsolete spiral furrows, fulvous-chestnut-coloured, with white spots; spire very short, with the apex slightly mucronate, horny; whorls $4\frac{1}{2}$, moderately convex, the last one obsoletely angulated, darker brown below the middle, pale, with chestnut-coloured spiral lines round the umbilicus, which is broad and open; aperture oblique, rather circular, indistinctly angular above and on the right side, white inside; peristome simple, straight, with the margins slightly thickened, joined into an angle, left margin rather expanded. Height 13, greatest breadth 30, least br. 23 mill.

Cyclostoma maculosum, *Sow. in Proc. Z. S.* 1843, p. 66; *Thes.* n. 65, p. 112, t. 31, f. 256, 257; *Pfr. Ic.* n. 47, p. 54, t. 7, f. 4–6.
Cyclophorus? maculosus, *Pfr. in Z. f. M.* 1847, p. 108, n. 31; *Consp.* n. 130; *Gray, Cat. Cycl.* p. 22, n. 31; *Pfr. Pneum. Mon.* p. 91.

Locality unknown.

68. Cyclophorus stenostomus. B. M.

Shell depressed, discoidal, solid, sculptured with very crowded wrinkled striæ, chestnut-coloured, with whitish or fulvous spots and flames; spire rather flat; whorls 4–5, moderately convex, enlarging rapidly, the last one slightly descending anteriorly; umbilicus wide and deep; aperture very oblique, irregularly roundish, slightly angular above, blueish inside; peristome whitish, blunt, double, the outer edge interrupted, straight, thickened; inner edge continuous, with the part adjacent to the penult whorl rectilinear. Height 6, greatest breadth 16, least br. $12\frac{1}{2}$ mill.

Cyclophorus stenostoma, *Sow. Thes.* n. 13, p. 95, t. 31, f. 261; *Pfr. Ic.* n. 159, p. 149, t. 20, f. 23–25.

Cyclophorus stenostoma, *Pfr.* in *Z.* f. *M.* 1847, p. 108, n. 34; *Consp.* n. 131; *Gray, Cat. Cycl.* p. 21, n. 29; *Pfr. Pneum. Mon.* p. 92.

β. Larger; height 9, greatest breadth 26, least br. 21 mill. (*Pfr. Ic.* t. 20, f. 18, 19.)

Hab. Arabia (Powis), India, Neilgherries (Jerdon), the var. from Cochin-China?

69. Cyclophorus loxostomus.

Shell depressed, discoidal, rather solid, closely sculptured with thread-like striæ, fuscous-fulvid, varied with paler spots; spire flat, with the subtle apex not prominent; whorls 5, moderately convex, increasing gradually, last rounded, dilated anteriorly, not descending; umbilicus broad, bowl-shaped, forming more than one-third of the total breadth; aperture diagonal, rather circular, pearly within; peristome continuous, shortly affixed, straight, indistinctly doubled, scarcely thickened. Height 4, greatest breadth $13\frac{3}{4}$, least br. 11 mill.

Cyclostoma loxostomum, *Pfr. in Proc. Z. S.* 1852; *Ic.* n. 406, t. 49, f. 11–13.

Cyclophorus loxostomus, *Pfr. Pneum Mon.* p. 93.

Hab. Ceylon (Mr. Lear).

§ 10. *Shell depressed, spirally striated and furrowed; peristome straight, thin.*

70. Cyclophorus? purus.

Shell depressed, thin, sculptured with crowded, thread-like, raised spiral lines, slightly decussated by very close-set striæ of growth, uniformly white; spire scarcely raised, with the apex subacuminate; whorls 6, moderately convex, enlarging rapidly, last broad, somewhat depressed, convex beneath; umbilicus exceedingly broad; aperture oblique, roundish, subangular; peristome simple, straight, sharp, with the margins very distant. Height 20, greatest breadth 51, least br. 43 mill.

Cyclostoma purum, *Forbes, in Proc. Z. S.* 1850, p. 56, t. 9, f. 9; *Pfr. Ic.* n. 226, t. 32, f. 14, 15.

Cyclophorus? purus, *Pfr. Consp.* n. 132; *Pneum. Mon.* p. 93.

Locality unknown.

71. Cyclophorus Cumingi. B. M.

Shell depressed, nearly discoidal, sculptured with crowded spiral furrows, whitish, with broad bands or stripes of a greenish-brown

periostraca; spire somewhat raised, reddish, slightly mucronate; whorls 5–6, moderately convex, the last one somewhat depressed, obsoletely angular at its periphery, convex beneath, and rather smooth in the umbilicus, which is very broad; aperture oblique, rather ovate, angular above, pearly inside; peristome simple, straight, with the margins approximate, united by a thin deposit; columellar margin strongly arcuated, rather thickened. Operculum yellowish, with the edges of the whorls lamellar, fringed. Height 23, greatest breadth 49, least br. 41 mill.

Cyclostoma Cumingii, *Sowerby, in Proc. Z. S.* 1832, p. 32; *Müll. Synops.* p. 37; *Desh. in Lam. Hist.* ed. ult. viii. p. 367, n. 30; *Sow. Spec. Conch.* f. 187–189; *Reeve, Conch. Syst.* t. 185, f. 19; *Sow. Thes.* n. 54, p. 108, t. 24, f. 68, 69; *Pfr. Ic.* n. 89, p. 92, t. 12, f. 1–3.

Cyclostoma striata, *Lea, Trans. Am. Phil. Soc.* v. t. 19, f. 77.

Cyclophorus Cumingii, *Pfr. in Z.* f. *M.* 1847, p. 108, n. 32; *Consp.* n. 133; *Gray, Cat. Cycl.* p. 22, n. 34; *Pfr. Pneum. Mon.* p. 94.

Hab. W. Columbia, the Island of Tumaco (H. Cuming).

72. Cyclophorus alternans.

Shell conoidally depressed, rather thin, sculptured with crowded alternatively smaller and stronger sharp ridges, not shining, white, with a pale yellowish deciduous periostraca; spire very shortly conoidal, with the apex rather blunt; suture slightly channelled; whorls 5, moderately convex, last rounded; umbilicus middle-sized, conic; aperture little oblique, rather circular; peristome simple, straight, with a brownish edge, rather continuous, with the margins joined on the penult whorl by a shining callus. Operculum membranaceous, wax-coloured. Height 10, greatest breadth 20, least br. 16 mill.

Cyclostoma alternans, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 324, t. 41, f. 30–32.

Cyclophorus alternans, *Pfr. Consp.* n. 134, p. 55; *Pneum. Mon.* p. 94.

Hab. Madagascar.

73. Cyclophorus Bourcieri.

Shell orbicular, rather conoidal, solid, minutely striate, and sculptured with more or less crowded, raised, spiral lines, covered with a brownish-olivaceous periostraca; spire shortly conoidal, with the apex somewhat nipple-shaped; whorls 4½–5, convex, increasing slowly, last cylindrical, slightly descending anteriorly; umbilicus wide; aperture oblique, roundish, rather angular, pearly inside; peristome simple, straight, shortly affixed to the penult whorl. Height 11, greatest breadth, 23½, least br. 18 mill.

Cyclostoma Bourcieri, *Pfr. in Proc. Z. S.* 1851 ; *Ic.* n. 223, t. 32, f. 5–7.

Cyclophorus Bourcieri, *Pfr. Consp.* n. 135, p. 55 ; *Pneum. Mon.* p. 95.

Hab. Republic of Æquator, Mindo (Mr. Bourcier).

74. Cyclophorus Guayaquilensis.

Shell conoidally depressed, solid, very crowdedly striate, and with spiral raised lines, yellowish, with narrow chestnut-coloured bands ; spire slightly turbinate, with the apex rather blunt ; whorls 5, moderately convex, enlarging gradually, the last one cylindrical, slightly radiatingly striate in the middle-sized umbilicus ; aperture scarcely oblique, nearly circular ; peristome simple, straight, interrupted on the penult whorl. Operculum? Height 8, greatest breadth 15, least br. 12 mill.

Cyclostoma Guayaquilense, *Sowerby, Thes. Suppl.* n. 189, p. 163*, t. 31 ; *B.* f. 319 ; *Pfr. Ic.* n. 335, t. 42, f. 21, 22.

Cyclophorus Guayaquilensis, *Pfr. Consp.* n. 136; *Pneum. Mon.* p. 95.

Hab. Guayaquil (Mr. De Lattre).

75. Cyclophorus psilomitus.

Shell depressedly-conoidal, rather solid, greenish yellow, moderately shining, girdled with very subtle, thread-like, raised, darker spiral lines ; spire shortly conoidal, blunt; suture slightly channelled ; whorls 4, convex, the last one cylindrical, with the spiral lines uniformly continued in the middle-sized deep umbilicus ; aperture nearly perpendicular, rather circular, whitish inside ; peristome simple, sharp, with the margins almost contiguous, joined by a short callus. Operc. ? Height 8, greatest breadth 15, least br. 11 mill.

Cyclostoma psilomitum, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 327, t. 41, f. 24, 25.

Cyclophorus psilomitus, *Pfr. Consp.* n. 137, p. 56 ; *Pneum. Mon.* p. 96.

Hab. Venezuela.

76. Cyclophorus rufuscens. B. M.

Shell convexly orbicular, thin, diaphanous, brownish-red or whitish, girdled with crowded sharply-raised ridges, of which 3–5 are stronger and nodulous; spire shortly raised, slightly mucronate ; whorls 5, angularly convex, the last one having a more distinct and sharp keel round the middle-sized, open umbilicus; aperture nearly perpendicular, circular; peristome simple, sharp, angulated above, shortly affixed to the penult whorl. Operculum membranaceous. Height 9, greatest breadth 15, least br. 13 mill.

Cyclostoma rufescens, *Sowerby, in Proc. Z. S.* 1843, p. 60; *Thes.* n. 11, p. 94, t. 24, f. 36, 37; *Pfr. Ic.* n. 110, p. 109, t. 12, f. 16, 17.
Cyclophorus rufescens, *Pfr. in Z.* f. *M.* 1847, p. 108, n. 36; *Consp.* n. 138; *Gray, Cat. Cycl.* p. 23, n. 35; *Pfr. Pneum. Mon.* p. 96.

Hab. Martinique.

77. Cyclophorus fornicatus.

Shell nearly lenticular, rather thin, closely sculptured with raised concentric lines, covered with a horn-coloured greenish, scarcely shining periostraca; spire short, vaulted, with the apex reddish, rather blunt; whorls 4, scarcely convex, enlarging rapidly, last more convex, sharply keeled on its periphery; umbilicus deep, forming about one-third of the total breadth; aperture oblique, ovate-circular; peristome simple, straight, slightly interrupted, with the margins approximate; columellar margin narrowly spreading. Operculum typical. Height $3\frac{2}{3}$, greatest breadth 9, least br. 7 mill.

Cyclostoma fornicatum, *Pfr. in Proc. Z. S.* 1852; *Ic.* n. 405, t. 49, f. 6–8.
Cyclophorus fornicatus, *Pfr. Pneum. Mon.* p. 97.

Hab. New Hebrides Islands.

§ 11. *Shell depressed, obliquely wrinkled or foveolated; peristome straight, thin.*

78. Cyclophorus ponderosus.

Shell conoidally depressed, thick, sculptured obliquely with subtle foveolate wrinkles, olivaceous-brownish; spire shortly conoidal, blunt; whorls 5, little convex, enlarging rapidly, the last one broad, somewhat depressed, with an obsolete cord-like keel at its periphery; umbilicus wide; aperture oblique, angularly ovate, white and shining inside; peristome thick, straight, rather continuous, dilated above into an angle; columellar margin strongly arcuate. Operculum membranaceous, pale brownish. Height 20, greatest breadth 36, least br. 30 mill.

Cyclostoma ponderosum, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 242, t. 35, f. 12–14.
Cyclophorus ponderosus, *Pfr. Consp.* n. 139, p. 56; *Pneum. Mon.* p. 97.

Hab. Guatemala.

79. Cyclophorus texturatus.

Shell depressed, rather solid, foveolate by slight longitudinal waved, manifoldly divided and confluent folds, olivaceous-fulvid; spire very shortly conoidal, with the apex blunt; whorls

5, convex, increasing rapidly, the last one cylindrical; umbilicus wide; aperture nearly perpendicular, rather circular, blueish inside; peristome simple, straight, continuous, shortly affixed, with a very indistinct angle above; with the upper margin nearly horizontal, columellar margin slightly thickened. Operculum thin, rather cartilaginous. Height 16, greatest breadth 35, least br. 28 mill.

Cyclostoma texturatum, *Sowerby, Thes. Suppl.* n. 182, p. 160*, t. 31, *A.* f. 303; *Pfr. Ic.* n. 243, t. 35, f. 10, 11.
Cyclophorus texturatus, *Pfr. Consp.* n. 140; *Pneum. Mon.* p. 97.

Hab. Guatemala.

80. Cyclophorus Dysoni.

Shell conoidally orbicular, solid, sculptured with close-set, slight, waving, rather confluent folds, brownish-olivaceous, with paler streaks and obsolete bands; spire conoidal, with the apex rather blunt; whorls $4\frac{1}{2}$, moderately convex, enlarging rapidly, last rounded; umbilicus middle-sized, conic; aperture nearly perpendicular, rather circular, slightly angulated, blueish and shining inside; peristome simple, straight, angulated above, shortly affixed, with the right margin declivous; columellar margin somewhat dilated and expanded. Operculum? Height 16, greatest breadth 27, least br. 22 mill.

Cyclostoma Dysoni, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 244, t. 35, f. 5, 6.
Cyclophorus? Dysoni, *Pfr. Consp.* n. 141, p. 56; *Pneum. Mon.* p. 98.

Hab. Honduras (Mr. Dyson).

§ 12. *Shell depressed, with simple radiating striæ; peristome straight, thin.*

81. Cyclophorus annulatus.

Shell much depressed, nearly discoidal, rather solid, with slightly-wrinkled striæ, white, with obsolete brownish spots above, and a single band below the periphery, covered with a thin, olivaceous, horn-coloured periostraca; spire flat, with the minute apex scarcely prominent; whorls $4\frac{1}{2}$, moderately convex, the last one slowly descending; umbilicus broad and deep; aperture oblique, ovate-roundish; peristome rather simple, imperceptibly expanded all round, with the margins approximate, joined by a short callus and forming a slight angle below the middle of the penult whorl. Operculum thin. Height 6, greatest breadth 18, least br. 15 mill.

Cyclostoma annulatum, *Troschel, MSS.; Pfr. in Z.* f. *M.* 1847, p. 150; *Ic.* n. 175, p. 162, t. 22, f. 17–19.

Cyclophorus annulatus, *Pfr. in Z.* f. *M.* 1847, p. 108, n. 33 ; *Consp.* n. 142; *Gray, Cat. Cycl.* p. 22, n. 32; *Pfr. Pneum. Mon.* p. 98.

β Larger; height 8, greatest breadth 23½, least br. 19 mill. (*Pfr. Ic.* t. 29, f. 14, 15.)

Cyclostoma discus, *Sowerby, MSS. olim.*

Hab. Ceylon (Dr. Hoffmeister).

82. Cyclophorus ravidus.

Shell nearly discoidal, slightly shining, coarsely sculptured with crowded, slight, radiating striæ, white, covered with an olivaceous-yellowish periostraca; spire scarcely raised, with the apex flattened, blunt; suture impressed; whorls 4, moderately convex, enlarging slowly, the last one cylindrical, scarcely descending anteriorly, obsoletely spirally striate above near the suture; umbilicus wide, open; aperture oblique, circular; peristome thin, straight, with the margins joined by a thin deposit. Operculum horny. Height 7, greatest breadth 15, least br. 13 mill. (*Bens.*)

Cyclostoma ravidum, *Bens. in Ann. and Mag.* 2nd ser. viii. 1851, p. 190; *Pfr. Ic.* n. 417, t. 50, f. 14–16.
Cyclophorus ravidus, *Pfr. Consp.* n. 143; *Pneum. Mon.* p. 99.

Hab. S. India, the summits of the Neilgherries (Jerdon).

83. Cyclophorus? disculus.

Shell depressed, discoidal, rather solid, shining, alabaster-white; spire quite flattened; whorls scarcely 4, moderately convex, striate near the impressed suture, the last one rather cylindrical, slightly depressed, more distinctly striate in the wide umbilicus, very shortly detached anteriorly; aperture nearly perpendicular, circular; peristome continuous, simple, straight. Operculum ? Height 5, greatest breadth 14, least br. 11 mill.

Cyclostoma disculus, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 294, t. 39, f. 11–13.
Cyclophorus? disculus, *Pfr. Consp.* n. 144, p. 56; *Pneum. Mon.* p. 99.

Locality unknown.

84. Cyclophorus Phænotopicus.

Shell depressed, nearly discoidal, thin, not shining, sculptured with coarse, sharp, radiating raised lines, and decussated near the suture, with impressed spiral striæ, which are scarcely perceptible under a lens; colour reddish-brown, with angular, interrupted streaks; spire depressed, with the apex prominent; suture impressed; whorls 4½, convex, enlarging gradually; um-

bilicus deep, rather open; aperture circular; peristome slightly expanded and reflected, rather duplicate above, outer edge somewhat angulated. Operculum horny, with 7–8 volutions. Height 4, greatest breadth 12, least br. 10 mill.

Cyclostoma Phænotopicum, *Benson, in Annals and Mag.* 2nd ser. viii. 1851, p. 190; *Pfr. Ic.* n. 419, t. 50, f. 20, 21.
Cyclophorus Phænotopicus, *Pfr. Consp.* n. 145; *Pneum. Mon.* p. 100, 417.

Hab. India, Darjiling, Sikkim-Himalayah.

Cyclophorus Moricandi.

Shell turbinate-depressed, rather solid, sculptured minutely with regular, thread-like ribs, opaque, whitish; spire slightly turbinate, with the apex rather pointed; whorls $4\frac{1}{2}$, convex, the last one cylindrical, shortly detached anteriorly; aperture scarcely oblique, circular; peristome simple, continuous, thin, straight. Height 4, greatest breadth 6, least br. 5 mill.

Cyclostoma disjunctum Moricand, *Mém.* 3e *Suppl.* p. 64, t. 5, f. 26–29; *Pfr. Ic.* n. 246, t. 35, f. 1, 2, not *Matheron.*
Cyclopoma disjunctum, *Troschel, in Arch.* f. *Naturg.* 1847, ii. p. 381.
Cyclophorus disjunctus, *Pfr. in Z.* f. *M.* 1847, p. 108, n. 39; *Consp.* n. 146; *Gray, Cat. Cycl.* p. 23, n. 36.
Cyclophorus Moricandi, *Pfr. Pneum. Mon.* p. 100.

Hab. Brazils.

VI. LEPTOPOMA.

Operculum membranous, closely whorled, flat. Shell globose-turbinated or conical, narrowly umbilicated. Peristome simple (rarely double), reflexed (rarely straight), with distant margins, joined sometimes by a very thin callus.

Leptopoma, *Pfr. in Z.* f. *M.* 1847. p. 47, 108; 1851, p. 144; *Consp.* p. 16; *Gray, Cat. Cycl.* p. 23; *Pfr. Pneum. Mon.* p. 101.
Cyclostoma spec., *Auctt.*

A. Peristome reflected.			
1. Not keeled	§ 1.	*n.*	1– 6
2. Keeled.			
a. Globose-conical.			
α Keel very slight	§ 2.	„	7–12
β Keel sharp	§ 3.	„	13–17
b. Conical	§ 4.	„	18–25
B. Peristome, simple, straight	§ 5.	„	26–29

§ 1. *Peristome reflexed. Shell not keeled.*

1. Leptopoma vitreum. B. M.

Shell globose-conical, thin, obliquely and slightly striate, decussated, under a lens, with crowded spiral lines, shining, pellucid, whitish or yellow, uniform or painted with brownish streaks, flames and bands; spire conoidal, rather pointed; whorls 5, convex, enlarging rapidly, the last one globular, with the axis very narrowly perforated; aperture oblique, roundish, subluunate; peristome simple, sharp, shortly expanded, with distant margins; columellar margin slightly dilated and expanded, rather protracted in the middle into an angle. Height 14, greatest breadth 18, least br. 13½ mill.

Cyclostoma vitrea, *Lesson, Voy. de la Coquille*, p. 346, t. 13, f. 6; *Desh. in Lam. Hist.* ed. alt. viii. p. 367, n. 31.

Cyclostoma lutea, *Quoy. & Gaim. Voy. Astrolabe*, ii. p. 180, t. 12. f. 11–14.

Cyclostoma nitidum, *Sowerby, in Proc. Z. S.* 1843, p. 60; *Thes.* n. 121, p. 133, t. 29, f. 225–227; *Reeve, Conch. Syst.* t. 183, f. 2; *Pfr. Ic.* n. 92, p. 96, t. 16, f. 10.

Cyclostoma vitreum, *Pfr. Ic. Z.* t. 28, f. 16–18; *Mouss. Jav. Moll.* p. 57, t. 6, f. 4.

Leptopoma nitidum, *Pfr. in Z.* f. *M.* 1847, p. 108, n. 6; *Gray, Cat. Cycl.* p. 24, n. 2.

Leptopoma vitreum, *Pfr. in Z.* f. *M.* 1847, p. 108, n. 8; *Consp.* n. 147; *Gray*, l. c. p. 24, n. 4; *Pfr. Pneum. Mon.* p. 101.

β. Smaller, rather solid, uniformly greenish-white, with 5 whorls; height 8, greatest breadth 10, least br. 8 mill.

γ. Shell uniformly glassy, or pale yellowish, with a single chestnut-coloured band and similar flame-paintings above; size like β. (*Pfr. Ic.* t. 12, f. 27–29.)

Cyclostoma lutea, *Lesson Voy. Coquille*, p. 345, t. 13, f. 5?

Hab. New Guinea (Lesson), New Ireland and Moluccas (Quoy), Philippine Islands (H. Cuming), Java (Mousson); the var. β from India, the Neilgherries Mountains.

2. Leptopoma perlucidum. B. M.

Shell globose-conical, thin, sculptured with very close-set spiral striæ, flesh-coloured-whitish, girdled very elegantly with greenish-fulvid spiral lines; spire turbinate, pointed; whorls 5, convex, the last one ventricose; umbilicus narrow; aperture scarcely oblique, nearly circular, fulvous inside; peristome white, thin, broadly expanded, with distant margins, columellar margin scarcely dilated, half covering the umbilicus. Height 13, greatest breadth 18, least br. 14 mill.

Cyclostoma perlucida, *Grateloup, in Act. Bord.* xi. p. 442, t. 3, f. 13.

Cyclostoma concinnum, *Sowerby, in Proc. Z. S.* 1843, p. 61; *Thes.* n. 122, p. 134, t. 29, f. 223, 224; *Delessert, Recueil*, t. 38, f. 14; *Chenu, Ill. Conch.* t. 1, f. 18.

Cyclostoma perlucidum, *Pfr. Ic.* n. 11, p. 19, t. 2, f. 8–10, t. 16, f. 8.

Leptopoma perlucidum, *Pfr. in Z.* f. *M.* 1847, p. 108, n. 4; *Consp.* n. 148; *Gray, Cat. Cycl.* p. 23, n. 1; *Pfr. Pneum. Mon.* p. 103.

Hab. The Philippine Islands, Bohol, Mindanao, Camiguing (H. Cuming).

3. Leptopoma ignescens.

Shell perforate, globose-conical, thin, closely sculptured with very minute spiral striæ, diaphanous, shining, pale fiery-reddish; spire turbinate, with the apex rather blunt; suture deep; whorls 4½, convex, the last one more distinctly spirally furrowed beneath; aperture oblique, nearly circular; peristome simple, expanded, with the margins approximate, not joined. Height 11½, greatest breadth 14, least br. 11 mill.

Cyclostoma ignescens, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 339, t. 42, f. 11, 12.

Leptopoma ignescens, *Pfr. Consp.* n. 149, p. 57; *Pneum. Mon.* p. 103.

Hab. New Ireland.

4. Leptopoma bicolor.

Shell perforate, globose-turbinate, thin, very closely spirally striate under a lens, diaphanous, whitish, with two chestnut-coloured bands; spire turbinate, with the apex rather blunt; whorls 5, moderately convex, the last one rounded, marked with 3–4 distant scarcely-raised lines; aperture oblique, nearly circular; peristome simple, nearly equally expanded into the plane of the aperture, with the margins joined by a very thin callus; columellar margin slightly sinuate. Height 10, greatest breadth, 13½, least br. 10 mill.

Cyclostoma bicolor, *Pfr. in Proc. Z. S.* 1852; *Ic.* n. 401, t. 48, f. 25–27.

Leptopoma bicolor, *Pfr. Pneum. Mon.* p. 104.

Locality unknown.

5. Leptopoma melanostomum.

Shell perforate, globose-conical, thin, smooth, shining, rather translucent, white; spire conical, pointed; whorls 5½, convex, the lower ones sometimes banded with reddish-brown lines, the last one ventricose, not descending; aperture rather oblique, circular; peristome interrupted, black, with the right and lower margins expanded into the plane of the aperture, columellar

margin rather indented. Height 9½, greatest breadth 12, least br. 9 mill.

Cyclostoma melanostoma, *Petit, in Revue Zool.* 1841, p. 308; *Guér. Mag.* 1842, t. 56; *Hombr. & Jacq. Voy. Pol. Sud. Moll.* t. 12, f. 20–24; *Pfr. Ic.* n. 189, p. 173, t. 25, f. 12–15.
Leptopoma melanostoma, *Pfr. in Z.* f. *M.* 1847, p. 108, n. 5; *Consp.* n. 150; *Gray, Cat. Cycl.* p. 24, n. 7.
Leptopoma melanostomum, *Pfr. Pneum. Mon.* p. 104.

Hab. New Guinea.

6. Leptopoma luteostomum. B. M.

Shell perforate, globose-conical, thin, girdled with distant, slightly-raised spiral lines, pellucid, white or fulvous; spire conical, pointed; whorls 5, convex, last ventricose; aperture oblique, nearly circular; peristome angularly reflected into the plane of the aperture, orange-coloured, with the margins approximate, joined by a thin callus; columellar margin dilated into an indistinct angle. Height 8, greatest breadth 10, least br. 8 mill.

Cyclostoma luteostoma, *Sow. in Proc. Z. S.* 1843, p. 62; *Thes.* n. 125, p. 135, t. 30, f. 228, 229.
Cyclostoma luteostomum, *Pfr. Ic.* n. 93, p. 96, t. 12, f. 21–23.
Leptopoma luteostoma, *Pfr. in Z.* f. *M.* 1847, p. 108, n. 9; *Consp.* n. 151; *Gray, Cat. Cycl.* p. 24, n. 5.
Leptopoma luteostomum, *Pfr. Pneum. Mon.* p. 104.

Hab. The Philippine Island of Guimaras (H. Cuming).

§ 2. *Peristome reflected, shell globose-conical, very slightly keeled.*

7. Leptopoma immaculatum. B. M.

Shell perforate, globose-conical, thin, very closely spirally striate, diaphanous, whitish, painted sometimes with chestnut-coloured points, spots or streaks; spire conical, pointed; whorls 5½, convex, the last one furnished above with several obsolete ridges, and with a single stronger keel on the periphery, convex beneath; aperture scarcely oblique, rather circular; peristome thin, broadly expanded, with distant margins; columellar margin dilated in the middle, but not covering the umbilicus, which is exceedingly narrow, and not pervious. Height 12, greatest breadth 17, least br. 12 mill.

Turbo immaculatus, *Chemn. Conch. Cab.* ix. P. ii. p. 57, t. 123, f. 1063.
Turbo marginellus, *Gmel. Syst.* p. 3602, n. 102.
Turbo lævis, *Wood, Ind. Suppl.* t. 6, f. 5.
Cyclostoma læve, *Gray, in Wood, Suppl.* p. 36; *Sow. in Proc. Z. S.* 1843, p. 63; *Thes.* n. 120, p. 133, t. 29, f. 220–222; *A. Adams & Reeve, Voy. Samarang, Moll.* p. 57, t. 14, f. 3.

Cyclostoma immaculatum, *Sow. Spec. Conch.* Pt. ii. *Cycl.* f. 124; *Beech, Voy.* p. 146, t. 38, f. 29; *Pfr. Ic.* n. 13, p. 22, t. 3, f. 7, t. 4, f. 7, t. 7, f. 23, 24, t. 16, f. 9.

Cyclostoma maculata, *Lea, Observ.* ii. p. 68, t. 23, f. 87.

Cyclostoma maculosa, *Souleyet, in Rev. Zool.* 1842, p. 101; *Voy. Bonite*, t. 30, f. 38–41.

Cyclostoma azaolanum, *Sow. MSS. olim; Jay, Catal.* 1850, p. 250, n. 5812.

Cyclostoma marginellum, *Küster, in Chemn.* t. 4, f. 7, *Index.*

Leptopoma immaculatum, *Pfr. in Z.* f. *M.* 1847, p. 108, n. 3; *Consp.* n. 152; *Gray, Cat. Cycl.* p. 25, n. 8; *Pfr. Pneum. Mon.* p. 105.

Hab. The Philippine Islands (H. Cuming); Celebes, Manado (A. Adams).

8. Leptopoma latelimbatum.

Shell perforate, globose-conical, thin, sculptured with very minute spiral striæ and rather equidistant obtuse ridges, diaphanous, somewhat shining, white, marbled with pale fulvous spots and bands; spire turbinate, rather pointed; whorls 5, moderately convex, enlarging rapidly, last rounded, slightly keeled on the periphery with a sharply-raised line; umbilicus narrow, scarcely going through; aperture oblique, nearly circular; peristome white, double, inner edge interrupted, shortly produced, with the margin joined by a thin callus; outer edge equally dilated all round and expanded into the plane of the aperture, except near the perforation, where it is cut out. Height 11, greatest breadth 17, least br. 13 mill.

Cyclostoma latelimbatum, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 297, t. 40, f. 1, 2.

Leptopoma latelimbatum, *Pfr. Consp.* n. 153, p. 57; *Pneum. Mon.* p. 106.

Hab. The Philippine Islands.

9. Leptopoma Massenæ.

Shell perforate, globose-conical, rather thin, with close-set spiral striæ, shining, whitish, varied with rusty-brownish spots and lines; spire conical, rather pointed; suture deep; whorls 5, convex, the last one keeled on the periphery, furnished above with four raised lines (which are obsolete on the upper whorls), rather smooth and little convex beneath; aperture rather oblique, circular, slightly angular; peristome simple, white, interrupted, expanded into a right angle, with the columellar margin emarginated below its insertion. Height 9, greatest breadth 11, least br. 9 mill.

Cyclostoma Massenæ, *Lesson, Voy. Coquille*, p. 346, t. 13, f. 7.

Cyclostoma multilabris, *Quoy & Gaim. Voy. Astrol.* iv. p. 183; t. 12, f. 20–22.
Cyclostoma multilabre, *Pfr. Ic.* t. 28, f. 20–22. (From Quoy.)
Leptopoma Massenæ, *Pfr. in Z.* f. *M.* 1847, p. 108, n. 2; *Consp.* n. 154; *Gray, Cat. Cycl.* p. 24, n. 6; *Pfr. Pneum. Mon.* p. 107.

β Monstrous variety, with the peristome multiplied.

Cyclostoma multilabris, *Lam. Hist.* vi. p. 148, n. 25; *Ed. Desh.* viii. *Deless. Recueil*, t. 29, f. 14; *Chenu, Ill. Conch. Livr.* 73, t. 1, f. 14.
Cyclostoma multilabre, *Pfr. Ic.* n. 195, p. 177, t. 29, f. 4–6. (From Dèless.)
Leptopoma multilabre, *Pfr. in Z.* f. *M.* 1847, p. 109, n. 19; *Gray, Cat. Cycl.* p. 27, n. 17.

Hab. New Guinea (Lesson); New Holland (Lamarck).

10. Leptopoma sericatum.

Shell perforate, globose-conical, thin, pellucid, silk-shining, sculptured with rather distant oblique lines and with 4–5 raised spiral lines above, glassy-whitish, with the ridges horn-coloured; spire turbinate, with the apex pointed, blackish; whorls 5, the upper ones somewhat convex, the last one ventricose, slightly keeled, marked below the keel, with a single chestnut-coloured band, sculptured beneath with several more obsolete spiral ridges; umbilicus excessively narrow, not pervious; aperture rather oblique, nearly circular, slightly emarginate; peristome simple, interrupted, thin, expanded into the plane of the aperture, with the columellar margin tongue-shaped in the middle. Height 9, greatest breadth 12, least br. 10 mill.

Cyclostoma sericatum, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 300, t. 40, f. 7, 8.
Leptopoma sericatum, *Pfr. Consp.* n. 155, p. 57; *Pneum. Mon.* p. 108.

β. Smaller, with $4\frac{1}{2}$ whorls, violaceous-fulvid, paler beneath; height $7\frac{1}{2}$, greatest breadth 10, least br. 8 mill. *Pfr. Ic.* t. 40, f. 11, 12.

Hab. Borneo (Taylor).

11. Leptopoma Panayense. B. M.

Shell perforate, globose-conical, very thin, nearly smooth, silk-shining, girdled with distant hair-like spiral ridges, pale fulvous, varied with chestnut-colour; spire short, conoidal, rather blunt; whorls 5, moderately convex, enlarging rapidly, the last keeled; aperture rather oblique, nearly circular, pearly inside; peristome simple, sharp, blueish-white, with a brownish edge, with the margins distant; right and basal margins arcuate, broadly and angularly expanded; columellar margin short, nearly recti-

linear, reflected above, slightly auriculate at its base. Height 10, breadth 13 mill.

Cyclostoma Panayense, *Sow. in Proc. Z. S.* 1843, p. 62; *Thes.* n. 123, p. 134, t. 30, f. 239; *Pfr. Ic.* n. 162, p. 151, t. 20, f. 28, 29.
Leptopoma Panayense, *Pfr. in Z.* f. *M.* 1847, p. 108, n. 11; *Consp.* n. 156; *Gray, Cat. Cycl.* p. 25, n. 10; *Pfr. Pneum. Mon.* p. 108.

Hab. The Philippine Islands of Panay and Samar (H. Cuming).

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12. LEPTOPOMA PERPLEXUM. B. M.

Shell umbilicate, conoidal, rather thin, very minutely decussated under a lens, rather angulated by equidistant obsolete keels, slightly shining, uniformly whitish or varied with bands and spots of a yellow periostraca; spire short, conoidal, pointed; whorls $5\frac{1}{2}$, moderately convex, the last one more flattened beneath; aperture oblique, truncate-ovate, shining and white inside; peristome callous, thickened, expanded, with distant margins, joined by a rather thickened callus; columellar margin dilated and slightly reflected in the middle. Height 10, greatest breadth 16, least br. 13 mill.

Cyclostoma perplexum, *Sow. in Proc. Z. S.* 1843, p. 63; *Thes.* n. 127, p. 186, t. 30, f. 243, 244; *Pfr. Ic.* n. 136, p. 130, t. 16, f. 11, 12.
Leptopoma perplexum, *Pfr. in Z.* f. *M.* 1847, p. 109, n. 14; *Consp.* n. 157; *Gray, Cat. Cycl.* p. 25, n. 12; *Pfr. Pneum. Mon.* p. 109.

Hab. Island of Luzon, Albulug (H. Cuming).

§ 3. *Peristome reflexed, shell globose-conical, acutely keeled.*

13. LEPTOPOMA ACUTIMARGINATUM. B. M.

Shell depressed-turbinate, rather thin, slightly obliquely striate, olivaceous-brownish, marbled and banded with white; spire short, conical, rather pointed; whorls 5, moderately convex, the last one sharply keeled, more convex beneath; umbilicus narrow, scarcely pervious; aperture nearly circular, white and shining inside, with the external painting translucent; peristome not quite continuous, white or yellow, expanded all round, with the columellar margin slightly thickened and reflected. Height 18, greatest breadth 29, least br. $23\frac{1}{2}$ mill.

Cyclostoma acutimarginatum, *Sow. in Proc. Z. S.* 1842, p. 80; *Thes.* n. 95, p. 124, t. 27, f. 138, 139; *Reeve, Conch. Syst.* t. 183, f. 7; *Pfr. Ic.* n. 133, p. 128, t. 15, f. 19–22.
Leptopoma acutimarginatum, *Pfr. in Z.* f. *M.* 1847, p. 109, n. 21; *Consp.* n. 158; *Gray, Cat. Cycl.* p. 27, n. 20; *Pfr. Pneum. Mon.* p. 110.

Hab. Island of Samar, Catbalonga (H. Cuming).

14. Leptopoma helicoides. B. M.

Shell top-shaped, thin, whitish, sometimes painted with minute brownish lines, or striped and marbled with chestnut-colour; spire conical, pointed; whorls 6, rather flat, with 5–6 obsolete spiral ridges, the last one sharply keeled on its periphery, moderately convex on both sides, smooth beneath; umbilicus excessively narrow, not pervious; aperture oblique, ovate, rather circular, somewhat pearly inside; peristome thin, expanded and reflected, with distant margins; columellar margin slightly sinuate. Height 16, greatest breadth 21, least br. 17½ mill.

Cyclostoma helicoides, *Grateloup, in Act. Soc. Linn. Bord.* xi. p. 442, t. 3, f. 14; *Pfr. Ic.* n. 134, p. 129, t. 15, f. 25, 26, t. 16, f. 1–3.

Cyclostoma Stainforthii, *Sow. in Proc. Z. S.* 1842, p. 80; *Thes.* n. 129, p. 136, t. 29, f. 215, 216, t. 30, f. 217; *Reeve, Conch. Syst.* t. 183, f. 6.

Leptopoma helicoides, *Pfr. in Z.* f. *M.* 1847, p. 109, n. 29; *Consp.* n. 159; *Gray, Cat. Cycl.* p. 27, n. 19; *Pfr. Mon. Pneum.* p. 110.

Hab. The Philippine Islands, Ticao, Masbate, Siquijor, Panay (H. Cuming).

15. Leptopoma insigne. B. M.

Shell rather conoidal, very thin, membranous, silk-shining, horny-olivaceous; spire conical, pointed; whorls 5, convex, the upper ones smooth, the two last obliquely striate, with four spiral ridges above, the last one very broad, sharply keeled on the periphery, ventricose beneath, with two scarcely prominent ridges; aperture little oblique, roundish, sublunate, somewhat pearly inside; peristome simple, shortly reflected, with distant margins; columellar margin white, slightly dilated, half covering the umbilicus, which is extremely narrow. Height 11, greatest breadth 15, least br. 12 mill.

Cyclostoma insigne, *Sow. in Proc. Z. S.* 1843, p. 62; *Thes.* n. 132, p. 138, t. 30, f. 232; *Pfr. Ic.* n. 107, p. 107, t. 12, f. 19, 20.

Leptopoma insigne, *Pfr. in Z.* f. *M.* 1847, p. 108, n. 10; *Consp.* n. 160; *Gray, Cat. Cycl.* p. 25, n. 9; *Pfr. Pneum. Mon.* p. 111.

Hab. Island of Mindoro, Calapan (H. Cuming).

16. Leptopoma ciliatum.

Shell depressed-turbinate, rather thin, slightly striate, chestnut-coloured, with fulvid streaks and spots; spire conoidal, with the apex pointed; whorls 5, moderately convex, the last one keeled on the periphery, furnished on the keel, with a single row of close-set hairs, more flattened beneath; aperture oblique, nearly circular, whitish inside; peristome simple, slightly ex-

panded, with distant margins; columellar margin shortly reflected. Height 8, breadth 12 mill.

Cyclostoma ciliatum, *Sow. in Proc. Z. S.* 1840, p. 65 ; *Thes.* n. 102, p. 127, t. 30, f. 237, 238 ; *Pfr. Ic.* n. 161, p. 150, t. 20, f. 26, 27.
Leptopoma ciliatum, *Pfr. in Z.* f. *M.* 1847, p. 109, n. 12 ; *Consp.* n. 161 ; *Gray, Cat. Cycl.* p. 25, n. 11 ; *Pfr. Pneum. Mon.* p. 112.

Hab. The province of South Camarinas, Island of Luzon (H. Cuming).

17. Leptopoma ciliferum.

Shell turbinate-conical, umbilicate, slightly keeled, thin, transversely striate, reddish-brown; spire very acuminated, with the suture perspicuous ; whorls 6, rather flat on both sides, girdled above with five raised ridges, the last one rather inflated with the keel becoming obsolete, sculptured with scaly striæ of growth, produced on the keel into long hairs, moderately convex beneath, furnished with slightly-raised lines, which are more distinct towards the umbilicus ; aperture nearly circular, angular above, with the margin double; outer edge rather membranaceous, reflected; inner edge straight. Height 9.4, greatest breadth 11, least br. 9 mill.

Cyclostoma ciliferum, *Mousson, Jav. Moll.* p. 56, t. 7, f. 3.
Leptopoma ciliferum, *Pfr. Consp.* n. 162 ; *Pneum. Mon.* p. 112.

Hab. Java.

§. 4. *Peristome reflexed, shell conical.*

18. Leptopoma undatum.

Shell very narrowly perforate, globose-conical, thin, spirally and very closely striate, diaphanous, whitish, painted irregularly with brownish waving streaks ; spire elongate-conic, with the apex rather pointed ; whorls $5\frac{1}{2}$, scarcely convex, the last one large, sharply keeled below the middle, convex on both sides ; aperture diagonal, ovate-roundish ; peristome thin, with distant margins ; right margin broadly reflected into the plane of the aperture ; columellar margin shortly reflected. Height 12, greatest breadth 15, least br. $11\frac{1}{2}$ mill.

Cyclostoma undatum, *Metcalfe, in Proc. Z. S.* 1851.
Leptopoma undatum, *Pfr. Consp.* n. 163 ; *Pneum. Mon.* p. 111.

Hab. Borneo.

19. Leptopoma fibula. B. M.

Shell perforate, top-shaped, thin, slightly striate and obliquely foveolate, uniformly white or painted with horn-coloured angular stripes ; spire conical, pointed ; whorls 5–6, rather flat, girdled with unequal raised lines; last whorl rather convex,

more distinctly keeled at the lower periphery; umbilicus narrow, half covered; aperture large, very oblique, truncatedly ovate; peristome expanded, with distant margins, joined by a thin callus; right margin almost rectilinear; basal margin slightly arcuate; columellar margin rather perpendicular, dilated and reflected. Height 16, greatest breadth 19, least br. 15 mill.

Cyclostoma fibula, *Sow. in Proc. Z. S.* 1843, p. 62; *Thes.* n. 126, p. 135, t. 80, f. 240–242; *Pfr. Ic.* n. 135, p. 130, t. 15, f. 23, 24, t. 16, f. 4.
Cyclostoma fibulum, *Jay, Catal.* 1850, p. 255, n. 5864.
Leptopoma fibula, *Pfr. in Z.* f. *M.* 1847, p. 109, n. 15; *Consp.* n. 164; *Gray, Cat. Cycl.* p. 26, n. 13; *Pfr. Pneum. Mon.* p. 113.

Hab. The Island of Luzon (H. Cuming).

20. Leptopoma goniostomum. B. M.

Shell perforate, conoidal, thin, sculptured with several scarcely-raised spiral lines, pellucid, pale horn-coloured, variously striped and spotted with brown; spire conical, rather pointed; whorls 6, scarcely convex, the last one sharply keeled, a little more convex on both sides; aperture diagonal, ovate, rather triangular, somewhat pearly inside; peristome thin, shortly expanded, with distant margins; right margin rather rectilinear; columellar margin shortly dilated, not covering the very narrow umbilicus; basal margin arcuate. Operculum flat, with the edge of the volutions slightly raised. Height 13½, greatest breadth 17, least br. 15 mill.

Cyclostoma goniostoma, *Sow. in Proc. Z. S.* 1843, p. 64; *Thes.* n. 131, p. 137, t. 30, f. 233, 234; *Reeve, Conch. Syst.* t. 183, f. 3; *Pfr. Ic.* n. 10, p. 18, t. 2, f. 5–7, t. 16, f. 5.
Leptopoma goniostoma, *Pfr. in Z.* f. *M.* 1847, p. 109, n. 16; *Consp.* n. 165; *Gray, Cat. Cycl.* p. 26, n. 14; *Pfr. Pneum. Mon.* p. 114.

Hab. Island of Mindanao, Cagayan, Province of Misamis (H. Cuming).

21. Leptopoma pileus. B. M.

Shell perforate, conical, thin, whitish, sometimes clouded with very pale-brownish; spire pyramidate, pointed; whorls 6, rather flat, the last one sharply keeled, moderately convex beneath; aperture very oblique, ovate, rather angular on the side of the keel; peristome shortly expanded, having a white internal callus, with distant margins; columellar margin slightly dilated, half covering the narrow umbilicus. Height 15, greatest breadth 15, least br. 13½ mill.

Cyclostoma pileus, *Sow. in Proc. Z. S.* 1843, p. 31; *Thes.* n. 128,

p. 136, t. 29, f. 196, 197 ; *Pfr. Ic.* n. 9, p. 18, t. 2, f. 3, 4 ; *Desh. Traité élém. Conch.* t. 82, f. 9, 10.

Leptopoma pileus, *Pfr. in Z.* f. *M.* 1847, p. 109, n. 17 ; *Consp.* n. 166 ; *Gray, Cat. Cycl.* p. 26, n, 15 ; *Pfr. Pneum. Mon.* p. 114.

Hab. Island of Luzon, the Province of Flocos (H. Cuming).

22. Leptopoma atricapillum. B. M.

Shell perforate, globose-pyramidal, thin, diaphanous, whitish, variously striped and speckled with dark brown ; spire pyramidal, with the apex pointed, black ; whorls 6, convex, marked with several more or less obsolete spiral ridges ; last whorl slightly convex below the strongest keel, nearly smooth ; aperture oblique, roundish, sublunate, shining and white inside ; peristome thin, expanded, with distant margins ; columellar margin slightly sinuate, scarcely dilated above, half covering the very narrow umbilicus. Height 11, greatest breadth 12⅔, least br. 11 mill.

Cyclostoma atricapillum, *Sow. in Proc. Z. S.* 1843, p. 64 ; *Thes.* n. 130, p. 137, t. 30, f. 230, 231 ; *Pfr. Ic.* n. 12, p. 20. t. 2, f. 11, 12, t. 16, f. 6, 7.

Leptopoma atricapillum, *Pfr. in Z.* f. *M.* 1847, p. 109, n. 18 ; *Consp.* n. 167 ; *Gray, Cat. Cycl.* p. 26, n. 16 ; *Pfr. Pneum. Mon.* p. 115.

Hab. Island of Mindoro, Calapan (H. Cuming).

23. Leptopoma regulare.

Shell very narrowly perforate, conically-globular, thin, sculptured with rather crowded spiral edges, which are equal above, very closely spirally striate in the interstices, diaphanous, whitish, regularly speckled with fulvous spots ; spire turbinate, with the apex pointed, pale horn-coloured ; whorls 5½, moderately convex, the last one more rounded, inflate, and more obsoletely spirally striate below the peripherical ridge ; aperture oblique, roundish, sublunate ; peristome interrupted, thin, white, shortly expanded, with the columellar margin rather angularly dilated at its lower extremity. Height 10, greatest breadth 12½, least br. 10 mill.

Cyclostoma regulare, *Pfr. in Proc. Z. S.* 1851 ; *Ic.* n. 298, t. 40, f. 3, 4.

Leptopoma regulare, *Pfr. Consp.* n. 168, p. 58 ; *Pneum. Mon.* p. 116.

Hab. The Philippine Islands.

Nearly allied to L. atricapillum, from which it differs by shorter spire, regular ridges, narrower umbilicus, etc.

24. Leptopoma acuminatum. B. M.

Shell perforate, conical, turreted, rather thin, obliquely slightly striate, diaphanous, shining, whitish; spire elongated, with the apex acuminated, brownish; whorls $6\frac{1}{2}$, moderately convex, last rounded, keeled below the middle; aperture very oblique, truncatedly ovate; peristome sharp, expanded, with distant margins; columellar margin rather dilated and slightly reflected above, rather angularly thickened at its lower extremity. Height 13, greatest breadth 12, least br. 10 mill.

Cyclostoma acuminatum, *Sow. in Proc. Z. S.* 1843, p. 65; *Thes.* n. 133, p. 138, t. 30, f. 235; *Pfr. Ic.* n. 104, p. 108, t. 13, f. 11, 12.
Leptopoma acuminatum, *Pfr. in Z.* f. *M.* 1847, p. 108, n. 1; *Consp.* n. 169; *Gray, Cat. Cycl.* p. 27, n. 18; *Pfr. Pneum. Mon.* p. 116.

Hab. Island of Luzon, S. Juan (H. Cuming).

25. Leptopoma elatum.

Shell conical, rather thin, obliquely striate, crossed, under a lens, with distant raised spiral lines, scarcely diaphanous, whitish; spire conical, rather pointed; whorls $5\frac{1}{2}$, somewhat convex, the last one more rounded, subacutely keeled, more closely decussated beneath; umbilicus extremely narrow, not pervious; aperture diagonal, truncatedly ovate; peristome simple, with the margins distant, equally broad, angularly expanded; columellar margin scarcely narrower. Height $10\frac{1}{2}$, greatest breadth $11\frac{1}{2}$, least br. 10 mill.

Cyclostoma elatum, *Pfr. in Proc. Z. S*, 1851; *Ic.* n. 226, a. t. 32, f. 16, 17.
Leptopoma elatum, *Pfr. Consp.* n. 170, p. 58; *Pneum. Mon.* p. 117.

Hab. Ceylon.

§. 5. *Peristome simple, straight.*

26. Leptopoma tenebricosum.

Shell narrowly umbilicate, globose-conical, slightly striate, thin, rather pellucid, brownish, varied with darker stripes and clouds; spire turbinate, rather blunt; whorls 4, very convex, last rounded, with a narrow yellow band on the periphery; aperture somewhat oblique, nearly circular, blueish, shining inside; peristome simple, straight, interrupted, with the columellar margin slightly reflected. Height 12, greatest breadth 14, least br. 12 mill.

Cyclostoma tenebricosum, *A. Adams & Reeve, Voy. Samarang, Moll.* p. 57, t. 14, f. 6; *Pfr. Ic.* n. 232, t. 33, f. 12, 13.
Leptopoma tenebricosum, *Pfr. Consp.* n. 171; *Pneum. Mon.* p. 117.

Hab. Borneo, Balambangan.

27. Leptopoma Birmanum.

Shell perforate, globose-conic, thin, sharply keeled, obliquely striate, decussated with very indistinct spiral lines, little shining, diaphanous, brownish-yellow, painted with broad angular streaks and interrupted bands of chestnut-colour; spire turbinate, rather blunt; whorls $4\frac{1}{2}$, moderately convex, last ventricose beneath; aperture somewhat oblique, rather quadrangular, bluish, pearly inside; peristome simple, sharp, with the margins distant, straight (or in the complete state reflected ?). Height 10, greatest breadth $14\frac{1}{2}$, least br. 10 mill.

Cyclostoma Birmanum, *Pfr. Consp.* p. 58; *Ic.* n. 385, t. 47, f. 4–7.
Leptoma Birmanum, *Pfr. Consp.* n. 172; *Pneum. Mon.* p. 117.

Hab. British Burmah (Th. Philippi).

28. Leptopoma halophilum.

Shell globose-conical, thin, slightly striate, rather shining, fulvous, usually with a narrow chestnut-coloured band; spire conical, rather pointed; whorls 5, rounded, last not descending; umbilicus narrow, not pervious; aperture somewhat oblique, nearly circular; peristome simple, straight, shortly interrupted, with the columellar margin scarcely reflected. Height 4–6, greatest breadth 6–7, least br. $4\frac{3}{5}$–6 mill.

Cyclostoma halophilum, *Benson, in Ann. and Mag.* 2nd ser. vii. p. 265; *Pfr. Ic.* n. 220, t. 31, f. 29–31.
Leptopoma halophilum, *Pfr. Consp.* n. 173; *Pneum. Mon.* p. 118.

Hab. Ceylon, Point de Galle (Benson), Colombo (Templeman).

29. Leptopoma ? minutissimum.

Shell globose-conical, thin, very minutely obliquely striate, diaphanous, fulvid, varied with white; spire raised, with the apex rather pointed, blackish; whorls $5\frac{1}{2}$, convex, the last one rather flattened beneath; aperture roundish, sublunate; peristome simple, sharp, with distant margins; columellar margin dilated into a broad reflexed and affixed lamina, which perfectly covers the umbilical region. Operc. thin, pale horn-coloured. Height 1, breadth 1 mill.

Cyclostoma minutissimum, *Sow. in Proc. Z. S.* 1832, p. 32; *Muller, Synops.* p. 37; *Sow. Thes.* n. 33, p. 102, t. 30, f. 251.
Hydrocena ? minutissima, *Pfr. in Z. f. M.* 1847, p. 112, n. 2.
Realia minutissima, *Gray, Cat. Cycl.* p. 63, n. 3.
Leptopoma? minutissimum, *Pfr. Consp.* n. 174; *Pneum. Mon.* p. 118.

Hab. Pitcairn Island (H. Cuming).

VII. ALYCÆUS.

Operculum orbicular, rather shelly, obsoletely many-whorled. Shell conical or depressed; spire regular; last whorl distorted, compressed, much contracted behind the aperture; mouth circular, peristome regularly reflected.

Alycæus, *Gray, Catal. Brit. Mus. Cycloph.* p. 27; *Pfr. in Z.* f. *M.* p. 1851, p. 147; *Consp.* p. 19; *Pneum. Mon.* p. 119.
Cyclophori, sp. *Pfr. olim.*
Cylostomatis, sp. *Auctt.*

1. Alycæus Gibbus. B. M.

Shell irregularly conical, inflated, rather thin, sculptured with longitudinal rib-like striæ, flesh-coloured-grayish; spire regularly elongate conical, with the apex rather blunt, orange-coloured or blackish; suture deep, simple; whorls 6, very convex, the last one protuberantly inflated laterally, contracted near the aperture, narrower anteriorly; umbilicus excentrical, very narrow, scarcely pervious; aperture oblique, nearly circular; peristome double; inner edge shortly produced; outer edge shortly expanded, emarginated near the perforation. Height 8, greatest breadth 11, least br. 8 mill.

Cyclostoma gibbum, *Férussac, Mus.*; *Eydoux in Guérin. Mag.* 1838, t. 117, f. 1; *Sow. Thes.* n. 135, p. 139, t. 30, f. 247, 248; *Pfr. Ic.* n. 102, p. 104, t. 17, f. 4–6.
Cyclophorus ? gibbus, *Pfr. in Z.* f. *M.* 1847, p. 108; n. 21.
Alycæus gibbus, *Gray, Cat. Cycl.* p. 28, n. 1; *Pfr. Consp.* n. 175; *Pneum. Mon.* p. 119.

Hab. Cochin-China, Touranne (Eydoux).

2. Alycæus strangulatus. B. M.

Shell depressed, rather discoidal, thin, sculptured with very minute rib-like striæ, horn-coloured-whitish; spire scarcely raised, blunt; whorls 4, convex, the last one inflated laterally, narrower anteriorly, contracted near the aperture and furnished with a small reversed tube, which is incumbent on the suture; umbilicus wide, open; aperture oblique, circular; peristome simple, white, rather thickened and expanded, with the margins approximate, joined by callus. Height $2\frac{1}{3}$, greatest breadth $4\frac{1}{2}$, least br. 4 mill.

Cyclostoma strangulatum, *Hutton, MSS.; Pfr. in Z.* f. *M.* 1846, p. 86; *Ic.* n. 103, p. 104, t. 17, f. 7, 8, t. 38, f. 35.
Cyclophorus strangulatus, *Pfr. in Z.* f. *M.* 1847, p. 108, n. 30.
Alycæus strangulatus, *Gray, Cat. Cycl.* p. 28, n. 2; *Pfr. Consp.* n. 176; *Pneum. Mon.* p. 120.

Hab. India, Landour.

3. Alycæus constrictus.

Shell perforate, ovate-conic, smooth, with narrow, distant, oblique ribs, translucent, whitish or reddish-brown; spire elongate-conical, with the apex blunt; suture much impressed; whorls 4, rounded, the upper ones smooth, the following distantly ribbed, the last one sculptured with very crowded rib-like striæ, strangulated behind the aperture, and broadly contracted anteriorly; with a retroversed sutural callus, like L. strangulatum, behind the constriction; aperture perpendicular, circular, equalling $\frac{3}{8}$ of the whole length; peristome reflected all round. Operculum shelly, many-whorled, with the suture inconspicuous. Height $3\frac{1}{2}$, breadth 2 mill.

Cyclostoma constrictum, *Benson, in Ann. and Mag.* 2nd. ser. viii. 1851, p. 188; *Pfr. Ic.* n. 408, t. 49, f. 26–28.
Alycæus constrictus, *Pfr. Consp.* n. 177; *Pneum. Mon.* p. 120.

Hab. Darjiling, Sikkim-Himalayah.

VIII. DIPLOMMATINA.

Operculum shelly, thin; whorls few, with thin prominent lamellæ on their external edges. Shell scarcely rimate, thin, subovate; whorls convex, last subascendant; aperture nearly circular; peristome interrupted, expanded.

Diplommatina, *Benson, in Ann. and Mag.* 1849, *Sept.* p. 193; *Gray, Catal. Cycloph.* p. 54; *Pfr. in Z. f. M.* 1851, p. 147; *Consp.* p. 19; *Pneum. Mon.* p. 121.
Carychii spec., *Hutton, Boys.*
Cyclostomatis spec., *Sow.*
Bulimi spec., *Pfr. olim.*

1. Diplommatina? Sowerbyi. B. M.

Shell subimperforate, ovate-oblong, very thin, smooth, shining, yellowish-glassy; spire ovate, with the apex blunt; whorls 5, inflated, the upper ones slightly ribbed, the penultimate broadest; aperture vertical, nearly circular; peristome white, shortly expanded, with the margins almost contiguous; columellar margin angularly dilated in the middle. Operculum? Length $5\frac{2}{3}$, breadth $3\frac{1}{2}$ mill.

Cyclostoma minus, *Sow. in Proc. Z. S.* 1843, p. 65; *Thes.* n. 175, p. 150, t. 30, f. 249 (magnified); *Pfr. Ic.* n. 101, p. 103, t. 17, f. 9–11.
Diplommatina? minus, *Gray, Cat. Cycl.* p. 35, n. 3.
Diplommatina? minor, *Pfr. Consp.* n. 178.
Diplommatina? Sowerbyi, *Pfr. Pneum. Mon.* p. 121.

Hab. Philippine Islands of Panay and Zebu (H. Cuming).

2. Diplommatina folliculus. B. M.

Shell shortly rimate, acuminately ovate, obliquely distinctly ribbed, pale brownish-white; spire conical, rather pointed; whorls 7; convex, the last one narrower, subascendant anteriorly, scarcely forming $\frac{1}{3}$ of the whole length; aperture rather perpendicular, nearly circular; peristome double; outer edge shortly expanded, with the margins approximate, joined by callus; right margin arcuate; columellar margin dilated, expanded. Length $3\frac{1}{2}$, breadth 2 mill.

Carychium costatum, *Hutton, MSS.*
Bulimus folliculus, *Pfr. Symb. Hist.* iii. p. 83; *Monogr. Helic.* ii. p. 81, n. 208; *Reeve, Conch.* ii. n. 644, t. 87.
Diplommatina folliculus, *Benson, in Ann. & Mag.* 1849, *Sept.* p. 193; *Gray, Cat. Cycl.* p. 54, n. 1; *Pfr. Consp.* n. 179; *Ic.* t. 48, f. 32, 33; *Pneum. Mon.* p. 122.

Hab. India; Simla, near Sutlej (Hutton), Landour (Boys).

3. Diplommatina costulata. B. M.

Shell imperforate, cylindric-ovate, whitish, very minutely ribbed, with the ribs oblique, regular, approximate; spire ovate-conical, rather blunt; whorls 3, the upper ones enlarging rapidly, last narrower, rather ascending anteriorly; suture deep; aperture nearly perpendicular, rather circular; peristome thin, almost continued, expanded, double; outer edge reflected, distinct from the ribs. Length 2, breadth scarcely 1 mill.

Carychium costulatum, *Hutton, MSS.*
Carychium parvulum, *Boys, MSS. in Brit. Mus.*
Diplommatina costulata, *Bens. in Ann. & Mag.* 1849, *Sept.* p. 194; *Pfr. Consp.* n. 180; *Ic.* t. 48, f. 34–35; *Pneum. Mon.* p. 122.
Diplommatina costulatum, *Gray, Cat. Cycl.* p. 55, n. 2.

Hab. India, Western Himalayah (Benson), Landour (Boys).

4. Diplommatina Huttoni.

Shell sinistral, rimate, ovate-conical, thin, with very minute rib-like striæ, silk-shining, fulvid-whitish; spire rather turreted, with the apex pointed; whorls $5\frac{1}{2}$, convex, the last one narrower; aperture rather oblique, depressedly circular; peristome nearly continued, double; inner edge very short, with an obsolete callous tooth on the columella; outer edge shortly expanded. Length $2\frac{1}{3}$, breadth 1 mill.

Diplommatina Huttoni, *Pfr. in Proc. Z. S.* 1851; *Consp.* n. 181; *Ic.* t. 48, f. 36, 37; *Pneum. Mon.* p. 123.

Hab. India, Muporee.

IX. MEGALOMASTOMA.

Operculum orbicular, thin, horny, many-whorled, rather flat. Shell narrowly or scarcely perforate, oblong turreted or pupa-shaped; aperture rather circular, sometimes furnished with a slight lateral channel; peristome double or simple, rather thickened, rarely straight.

Megalomastoma, *Guilding, in Swains. Malac.* p. 186, 336; *Pfr. in Z.* f. *M.* 1847, p. 109; 1851, p. 148; *Consp.* p. 20; *Gray, in Proc. Z. S.* 1847, p. 182; *Cat. Cycl.* p. 30; *Pfr. Mon. Pneum.* p. 123.
Farcimen, *Troschel, in Z.* f. *M.* 1847, p. 44; *Gray, in Proc. Z. S.* 1847, p. 182; *Cat. Cycl.* p. 28.
Cyclostomatis sp., *Auctt.*

A. Peristome straight . . . . § 1. *n.* 1.
B. „ expanded.
1. Thickened . . . . § 2. „ 2–11.
2. Rather thin, usually double . § 3. „ 12–19.

§ 1. *Peristome straight.*

1. Megalomastoma cylindraceum. B. M.

Shell arcuately rimate, cylindrical, solid, slightly striate longitudinally, saffron-coloured; spire elongate, lessened towards the apex, which usually is slightly truncate; whorls 8, rather flattened, last somewhat compressed beneath, sometimes anteriorly dark violaceous; aperture nearly perpendicular, rather circular, yellow, with a saffron-coloured ring; peristome simple, continued, straight, slightly thickened, thicker and somewhat detached at its upper angle. Length 34, breadth 10½ mill.

Helix cylindracea, *Chemn. Conch. Cab.* ix. part ii. p. 166, t. 135. f. 1233.
Helix crocea, *Gmel. Syst.* p. 3655, n. 243.
Turbo croceus, *Dillw. Descr. Catal.* ii. p. 862, n. 112.
Turbo flavidus, *Wood, Ind. Suppl.* t. 6, f. 31.
Cyclostoma flavula, *Lam. Hist.* vi. p. 146, n. 13 (*Encycl. méth.* t. 461, f. 6?), ed. *Desh.* viii. p. 357; *Desh. in Encycl. méth.* ii. p. 41, n. 8; *Webb & Berth, Synops. Canar.* n. 3?; *Chenu, Ill. Conch.* t. i. f. 17.
Cyclostoma flavidum, *Gray, in Wood, Suppl.* p. 36.
Cyclostoma crocea, *Desh. in Lam.* ed. alt. viii. p. 357.
Cyclostoma . . . *Sow. Consp. Man.* f. 529.
Cyclostoma flavula, *Sow. Thes.* n. 53, p. 108, t. 24, f. 66, 67.
Cyclostoma cylindraceum, *Pfr. Ic.* n. 116, p. 114, t. 17, f. 1–3.
Cyclostoma croceum, *Petit, in Journ. Conch.* i. p. 45.
Megalomastoma flavula, *Swains. Malac.* p. 336.

Megalomastoma cylindraceum, *Pfr. in Z.* f. *M.* 1847, p. 109, n. 4; *Consp.* n. 182; *Pneum. Mon.* p. 124.
Farcimen flavulum, *Trosch. in Z.* f. *M.* 1847, p. 44.
Farcimen cylindraceum, *Gray, Cat. Cycl.* p. 28, n. 1.

Hab. Portorico? and Teneriffe.

§ 2. *Peristome expanded, thickened.*

2. Megalomastoma croceum. B. M.

Shell perforate, oblong-turreted, rather solid, slightly obliquely striate, diaphanous, saffron-coloured; spire turreted-conical, with the apex rather pointed; whorls 7–8, moderately convex, the last one forming about $\frac{2}{3}$ of the whole length; pale anteriorly; aperture angularly ovate, proceeding with its base beyond the axis, similarly coloured inside; peristome double; inner edge continuous, slightly expanded, affixed; outer edge thickened, expanded, white, shortly interrupted on the penultimate whorl. Operculum? Length 31, breadth 13 mill.

Cyclostoma croceum, *Sow. Thes.* n. 167, p. 150, t. 29, f. 190, 191; *Pfr. Ic.* n. 177, p. 164, t. 24, f. 15, 16.
Cyclostoma Gooldianum, *Petit, Journ. Conch.* i. p. 45.
Megalomastoma croceum, *Pfr. in Z.* f. *M.* 1847, p. 109, n. 5; *Pneum. Mon.* p. 125.
Farcimen croceum, *Gray, Cat. Cycl.* p. 29, n. 2.

Hab. Island of Mauritius, Woods near Black River (Benson).

3. Megalomastoma bifasciatum.

Shell deeply rimate, ovate-conical, rather solid, smooth, shining, flesh-coloured; spire convexly conical, rather pointed; whorls 8, moderately convex, the last one painted with two broad chestnut-coloured bands, rounded beneath; aperture nearly perpendicular, angularly ovate; peristome double; inner edge shortly expanded and affixed; outer edge thickened, blunt, with the left margin narrow, emarginated on the penult whorl. Operculum? Length 33, breadth 15 mill.

Cyclostoma bifasciatum, *Sow. Thes. Suppl.* n. 198, p. 167*, t. 31, *B*, f. 322, 323; *Pfr. Ic.* n. 252, t. 36, f. 3, 4.
Megalomastoma bifasciatum, *Pfr. Consp.* n. 184; *Pneum. Mon.* p. 126.

Hab. Guayaquil (De Lattre).

4. Megalomastoma tortum. B. M.

Shell rimate, ovate-oblong, thick, slightly truncate, minutely striate, flesh-coloured-yellowish; whorls 5–6, convex, somewhat irregular, the last one lessened, with a compressed keel near the

perforation; aperture nearly perpendicular, circular; peristome much thickened, dilated, widely affixed to the penult whorl, with the left margin subauriculate, sometimes perfectly closing the umbilical cleft. Length 27, breadth 12 mill.

Turbo tortus, *Wood, Ind. Suppl.* t. 6, f. 32.
Cyclostoma tortum, *Gray, in Wood, Suppl.* p. 36; *Sow. Thes.* n. 169, p. 151, t. 28, f. 182?; *Pfr. Ic.* n. 115, p. 113, t. 17, f. 22–23.
Cyclostoma torta, *Desh. in Lam. Hist.* viii. p. 372, n. 42; *Orb. Moll. Cub.* i. p. 257; *Chenu, Ill. Conch.* t. 1, f. 16.
Megalomastoma tortum, *Pfr. in Z.* f. *M.* 1847, p. 109, n. 7; *Consp.* n. 185; *Pneum. Mon.* p. 126.
Farcimen tortum, *Gray, Cat. Cycl.* p. 29, n. 4 (in part).

Hab. Cuba.

8. Megalomastoma bituberculatum.

Shell perforate, oblong-pupa-shaped, shortly truncate, solid, irregularly and coarsely striate, little shining, grayish-flesh-coloured; spire rather turreted; suture deep; whorls 5, very convex, the last descending, slightly detached anteriorly, a little compressed near the perforation; aperture nearly perpendicular, with the base somewhat produced beyond the axis, circular, chestnut-coloured inside; peristome much thickened, reflected, with the external edge cut out on the penult whorl, and terminating on both sides into a rounded knot. Length 34, breadth 15 mill.

Cyclostoma bituberculatum, *Sow. Thes. Suppl.* n. 192, p. 164*, t. 31, *A.* f. 290, 291; *Pfr. Ic.* n. 253, t. 36, f. 5, 6.
Megalomastoma bituberculatum, *Pfr. Consp.* n. 186; *Pneum. Mon.* p. 127.

β. Smaller, more ovate, subtruncate, dark violaceous, fulvous towards the apex, with the peristome auriculated on both sides; length 24, breadth 11½ mill.

Cyclostoma auriculatum, *Sow. Thes.* n. 171, p. 151, t. 31, f. 277; *Pfr. Ic.* n. 113, p. 112, t. 17, f. 16, 17.

γ. Shell like var. β, with the peristome obliquely cut off along the penultimate whorl, sometimes slightly channelled.

Cyclostoma auriculatum var., *Pfr. Ic.* t. 17, f. 12, 13.
Cyclostoma solenatum, *Poey, Memorias sobre la Hist. Nat. de Cuba*, i. t. 7, f. 17, 18.
Cyclostoma tortum var., *Poey, Mem.* ii. p. 105, t. 13, f. 25, 26.

Hab. Cuba.

6. Megalomastoma Mani.

Shell perforate, oblong, pupa-shaped, solid, marked with irregular slight arcuate striæ, little shining, uniformly greenish-fulvid, or with the two last whorls greenish-violaceous; spire inflated.

conical and scarcely truncate above; suture deep, simple; whorls 7, very convex; the penultimate somewhat flattened on the side of the mouth, the last one narrower, cylindrical, not compressed round the perforation; aperture circular, scarcely produced at its base beyond the axis; peristome continuous, much thickened, slightly reflected, shortly affixed to the penult whorl, dilated, on the columellar side, into an ear-shaped appendix. Length 28, breadth 12½ mill.

Cyclostoma Mani, *Poey*, *Mem. Hist. Nat. Cuba*, i. t. 7, f. 19–22; *Pfr. Ic.* n. 387, t. 47, f. 29–31.
Cyclostoma tortum var., *Poey*, *Mem.* ii. p. 105, t. 13, f. 23, 24.
Megalomastoma Mani, *Pfr. Pneum. Mon.* p. 128.

Hab. Cuba (Poey).

7. Megalomastoma ventricosum. B. M.

Shell umbilicate, oblong-ovate, subtruncate, thick, smooth, flesh-coloured; whorls 5, convex, enlarging rapidly; the penultimate broadest, the last narrower, angulated round the narrow umbilicus; aperture circular, fulvid inside; peristome continuous, expanded, thickened, white, shortly affixed to the penult whorl, with the upper and columellar margins dilated into slight angles. Length 29, breadth 16 mill.

Cyclostoma ventricosa, *Orb. Moll. Cub.* i. p. 256, t. 21, f. 3; *Chenu*, *Ill. Conch.* t. 1, f. 15.
Cyclostoma ventricosum, *Sow. Thes.* n. 170, p. 151, t. 28, f. 183, 184; *Pfr. Ic.* n. 112, p. 111, t. 17, f. 20, 21.
Megalomastoma ventricosum, *Pfr. in Z.* f. *M.* 1847, p. 109, n. 10; *Consp.* n. 188; *Pneum. Mon.* p. 128.
Farcimen tortum var., *Gray*, *Cat. Cycl.* p. 29.

Hab. Cuba.

8. Megalomastoma alutaceum.

Shell perforate, ovate-oblong, truncate, rather thick, impressedly punctate and granularly wrinkled, whitish, with a violaceous tinge; whorls 4½, convex, the last one lessened, detached and deflected anteriorly, angularly compressed near the perforation; aperture rather perpendicular, nearly circular; peristome continuous, thickened, and slightly reflected, dilated and subauriculate above and on the left margin. Length 23, breadth 11 mill.

Cyclostoma alutaceum, *Menke*, *MSS.*; *Pfr. in Z.* f. *M.* 1846, p. 85; *Ic.* n. 114, p. 113, t. 17, f. 18, 19.
Megalomastoma alutaceum, *Pfr. in Z.* f. *M.* 1847, p. 109, n. 9; *Consp.* n. 189; *Pneum. Mon.* p. 129.
Farcimen tortum var., *Gray*, *Cat. Cycl.* p. 30.

Hab. Cuba.

9. MEGALOMASTOMA AURICULATUM. B. M.

Shell perforate, ovate-conic, solid, with slightly arcuate striæ, whitish above, dark violaceous below the middle, covered with a greenish-fulvid periostraca; spire convexly turreted, with the apex not truncate, rather pointed; whorls 7, convex, the lower ones descending somewhat irregularly, the last one less convex, slightly compressed round the perforation; aperture perpendicular, circular, brownish-violaceous internally; peristome continuous, with the margin shortly touching the penult whorl simple, otherwise thickened and reflected; columellar margin dilated, subauriculate. Length 22, breadth 11 mill.

Cyclostoma auriculata, *Orb. Moll. Cub.* i. p. 257, t. 22, f. 1, 2; *Desh. Traité Elém. Conch.* t. 82, f. 11.
Cyclostoma bicolor, *Gould, in Proc. Bost. Soc.* 1843, p. 138.
Cyclostoma auriculatum, *Gould, in Bost. Journ.* iv. 4, p. 494; *Pfr. Ic.* t. 17, f. 14, 15.
Cyclostoma idolum, *Feruss. Mus.*
Cyclostoma tortum var., *Sow. Thes.* t. 28, f. 181?
Megalomastoma auriculatum, *Pfr. in Z.* f. *M.* 1847, p. 109, n. 8; *Consp.* n. 187; *Pneum. Mon.* p. 129.
Farcimen tortum var., *Gray, Cat. Cycl.* p. 29.

β. A little smaller, with the peristome less thickened.

Cyclostoma apertum, *Poey, Mem. Hist. Nat. Cuba*, i. t. 7, f. 15, 16.
Cyclostoma tortum var., *Poey, Mem.* ii. p. 105, t. 13, f. 29, 30.

Hab. Cuba.

10. MEGALOMASTOMA ORBIGNYI.

Shell subperforate, elongate, pupa-shaped, solid, closely and arcuately striate, reddish-fulvid; spire rather cylindrical, tapering gradually, with the apex conical; suture deep; whorls 8, scarcely convex, the penultimate very broad, the last marked with a broad violaceous band, which becomes indistinct anteriorly, furnished beneath with a blunt, compressed crest; aperture perpendicular, circular; peristome thickened, slightly reflected, affixed above, submarginate below the crest of the penult whorls. Operculum whitish. Length 27, breadth 9 mill.

Cyclostoma Orbignyi, *Pfr. in Proc. Z. S.* 1850; *Ic.* n. 262, t. 37, f. 3, 4.
Megalomastoma Orbignyi, *Pfr. Consp.* n. 190, p. 73; *Pneum. Mon.* p. 130.

β. Uniformly greenish-fulvid.
γ. Smaller, with more convex whorls, sometimes quite violaceous; length 20, breadth 8 mill. (*Pfr. Ic.* t. 37, f. 5, 6.)

Hab. Haiti (M. Sallé).

11. Megalomastoma chrysallis.

Shell umbilicate, distortedly ovate, solid, slightly striate and foveolate, brownish-flesh-coloured; spire irregularly ovate, with the apex conoidal, rather pointed; suture slight; whorls 6, moderately convex, the penultimate rather flattened on the side of the mouth, the last narrower; aperture perpendicular, circular; peristome thick, dilated, expanded, reflected, with the affixed upper margin forming a horizontal line. Length 16, breadth 9 mill.

Cyclostoma chrysallis, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 217, t. 31, f. 23, 24.

Megalomastoma chrysallis, *Pfr. Consp.* n. 191, p. 73; *Pneum. Mon.* p. 131.

Hab. Ava.

§ 3. *Peristome expanded, rather thin, usually double.*

12. Megalomastoma simulacrum.

Shell subperforate, turreted, truncate, solid, smooth, scarcely shining, greenish-fulvous or chestnut-coloured; spire elongate, tapering gradually; suture slightly bordered; whorls (remaining) 6, moderately convex, the last one with a thread-like keel at its base, striate above the keel; aperture perpendicular, rather circular; peristome double; inner edge shortly prominent; outer edge broadly expanded, white, concave internally, interrupted near the perforation, with the upper margin appressed; columellar margin free. Length 35, breadth 11 mill.

Cyclostoma simulacrum, *Morelet, Test. noviss.* p. 22, n. 54; *Pfr. Ic.* n. 256, t. 36, f. 11, 12.

Megalomastoma simulacrum, *Pfr. Consp.* n. 192; *Pneum. Mon.* p. 131.

β. Smaller, with the whorls more convex; length 28, breadth 10 mill.

Cyclostoma Copanense, *Sow. Thes. Suppl.* n. 194, p. 163*, t. 31 *B.* f. 310, 311.

Hab. Guatemala, the province Vera Paz.

13. Megalomastoma Guatemalense.

Shell perforate, oblong, rather solid, subtruncate, slightly striate, olivaceous-brownish; spire turreted, with the outlines rather curvilinear; whorls 6, little convex, the last narrower, descending interiorly and shortly detached, compressed beneath, but not keeled round the open perforation; aperture perpendicular, rather circular; peristome free, white, double; inner edge con-

tinuous, scarcely prominent, outer edge dilated, expanded into the plane of the aperture, cut out above the perforation. Length 24, breadth 8 mill.

Cyclostoma Guatemalense, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 257, t. 36, f. 13, 14.
Megalomastoma Guatemalense, *Pfr. Consp.* n. 193, p. 58; *Pneum. Mon.* p. 132.

Hab. Guatemala, the province Vera Paza.

14. Megalomastoma altum. B. M.

Shell subperforate, oblong-turreted, rather solid, minutely striate, nearly smooth, silk-shining, chestnut-coloured; spire turreted, with the outlines curvilinear, with the apex rather pointed, yellowish; whorls 7–8, the upper ones scarcely convex, the penultimate more rounded, last whorl narrower, rounded beneath, with a blunt thread-like keel; aperture rather oblique, produced with its base, circular, brown inside; peristome double; inner edge continuous, expanded, with a slightly-impressed channel on the left side near the columella; outer edge shortly expanded, dilated above and on the left side. Length 26, breadth 9 mill.

Cyclostoma altum, *Sow. in Proc. Z. S.* 1842, p. 84; *Thes.* n. 173, p. 152, t. 28, f. 187; *Pfr. Ic.* n. 131, p. 127, t. 15, f. 12–14.
Megalomastoma altum, *Pfr. in Z.* f. *M.* 1847, p. 109, n. 1; *Consp.* n. 194; *Gray, Cat. Cycl.* p. 31, n. 2; *Pfr. Pneum. Mon.* p. 132.

Hab. The Philippine Island of Negros (H. Cuming).

15. Megalomastoma sectilabrum.

Shell perforate, oblong-turreted, rather solid, very minutely striate, opaque, brown; spire turreted, with the apex rather blunt; whorls 7, convex, the last slightly receding below the penultimate, rounded, not thread-keeled beneath; aperture oblique, with the base produced beyond the axis, ovate, roundish; peristome double; inner edge expanded, affixed, slightly effuse on the columellar side, outer edge shortly expanded, slightly interrupted on the penult whorl, dilated above and below the perforation. Length 23, breadth 10 mill.

Cyclostoma sectilabrum, *Gould, in Bost. Journ.* 1844, p. 459, t. 24, f. 10; *Pfr. Ic.* n. 178, p. 164, t. 24, f. 17, 18, t. 47, f. 11, 12.
Megalomastoma sectilabrum, *Pfr. in Z.* f. *M.* 1847, p. 109, n. 6; *Consp.* n. 195; *Pneum. Mon.* p. 133.
Farcimen sectilabrum, *Gray, Cat. Cycl.* p. 29, n. 3.

Hab. British Burmah, Tavoy.

16. Megalomastoma funiculatum. B. M.

Shell shortly rimate, turreted-oblong, thin, striate and irregularly foveolate, rather pellucid, brown; spire elongate, with the apex rather blunt; whorls 7, moderately convex, the last forming about $\frac{1}{3}$ of the whole length, furnished beneath with a cord-shaped keel; aperture nearly perpendicular, scarcely produced with its base, circular; peristome continuous; flesh-coloured, shortly affixed, expanded and reflected all round. Length $22\frac{1}{2}$, breadth $8\frac{1}{2}$ mill.

Cyclostoma funiculatum, *Benson, in Journ. As. Soc.* vii. 1838, p. 217; *Sow. Thes. Suppl.* n. 195, p. 166*, t. 31 *B.* f. 316, 317; *Pfr. Ic.* n. 219, t. 31, f. 27, 28.

Megalomastoma funiculatum, *Gray, Cat. Cycl.* p. 31, n. 3; *Pfr. Consp.* n. 196; *Pneum. Mon.* p. 133.

Hab. Darjiling, Sikkim-Himalayah.

17. Megalomastoma Guildingianum.

Shell subperforate, oblong-turreted, rather solid, nearly smooth, shining, chestnut-coloured; spire elongate, with the apex subtruncate; whorls 8, moderately convex, the last one narrower, obsoletely spirally furrowed, rounded beneath; aperture rather perpendicular, nearly circular; peristome white, double; inner edge continuous, expanded, with the left margin slightly channelled; outer edge reflected, slightly angulated above, with the columellar margin dilated and expanded. Length 22, breadth 8 mill.

Cyclostoma Guildingianum, *Pfr. in* Z. f. *M.* 1851, p. 28; *Ic.* n. 218, t. 31, f. 25, 26.

Megalomastoma Guildingianum, *Pfr. Consp.* n. 197; *Pneum. Mon.* p. 134.

Locality unknown.

18. Megalomastoma pauperculum.

Shell small, cylindrically turreted, shining, of an olivaceo-fulvous colour; spire rather obtuse, with six slightly-rounded volutions, very finely striated with the lines of growth (sometimes rendered slightly rugulose by erosion); suture distinct, rather deep; aperture nearly circular; peritreme slightly thickened, rounded, and reflected, very slightly foliaceous and interrupted at the last volution; umbilicus small, surrounded by a somewhat obsolete-raised line. Length 18, breadth 8 mill.

Cyclostoma pauperculum, *Sow. Thes. Suppl.* n. 196, p. 166*, t. 31 *B.* f. 318; *Pfr. Ic.* n. 412, t. 49, f. 37, 38.

Megalomastoma pauperculum, *Pfr. Consp.* n. 198; *Pneum. Mon.* p. 134.

Hab. Bhotan, Sikkim-Himalayah (Benson).

19. Megalomastoma Antillarum. B. M.

Shell shortly rimate, turreted, with crowded longitudinal rib-like striæ, covered with a slightly shining, horn-coloured-brownish periostraca; spire elongate, with the apex rather blunt; suture deep; whorls 8, convex, the last narrower, forming about $\frac{1}{4}$ of the whole length, furnished beneath with a raised, cord-shaped keel; aperture somewhat oblique, nearly circular, shining fulvous inside; peristome indistinctly double; detached, continuous, angulated above; shortly expanded, with the upper left margin rather cut out. Length 17, breadth $5\frac{1}{2}$ mill.

Cyclostoma Antillarum, *Sow. Thes.* n. 168, p. 150, t. 28, f. 180; *Pfr. Ic.* n. 132, p. 127, t. 15, f. 15, 16.
Megalomastoma brunnea, *Guild. in Swains. Malac.* p. 333, f. 97, *g, h, i.*
Megalomastoma suspensum, *Guild. ibid.* p. 186, f. 29 ?
Megalomastoma Antillarum, *Pfr. in Z.* f. *M.* 1847, p. 109, n. 2; *Consp.* n. 199; *Gray, Cat. Cycl.* p. 31, n. 5; *Pfr. Pneum. Mon.* p. 135.

Hab. W. Indies, the islands of Tortola and St. Vincent.

X. CATAULUS.

Operculum orbicular, flat, horny, many-whorled. Shell perforate, pupa-shaped, not callous, furnished with a filiform basal keel; aperture entire, prolongated at its base by a rather circular channel; peristome continuous, dilated, at its lower extremity, into the keel of the last whorl.

Cataulus, *Pfr. in Z.* f. *M.* 1851, p. 149; *Consp.* p. 21, *Pneum. Mon.* p. 136.
Cyclostoma spec., *Auct.*
Megalomastoma spec., *Gray.*

1. Cataulus tortuosus. B. M.

Shell deeply rimate, fusiform-oblong, rather solid, very minutely striate, shining, whitish; spire ovate-turreted, with the apex rather pointed; whorls 7, convex, the two penultimate ones broad, last whorl more slender, detached, protracted downward, furnished beneath with a thread-shaped keel, which becomes broader near the aperture; aperture perpendicular, rather circular; peristome continuous, white, reflected, distinctly channelled at its base, angulated externally, sinuate on the right side. Length 18, breadth 6 mill.

Turbo tortuosus, *Chemn. Conch. Cab.* xi. p. 158, t. 195, f. 1882, 1883.
Helix (Cochlodina ?) tortuosa, *Féruss. Prodr.* n. 504, p. 61.
Pupa tortuosa, *Gray, in Annals of Phil.* new ser. ix. p. 413.
Urocoptis ? tortuosa, *Beck, Ind.* p. 83, n. 10.

Cyclostoma tortuosum, *Sow. Thes.* n. 172, p. 152, t. 28, f. 185, 186; *Pfr. Ic.* n. 179, p. 165, t. 24, f. 19, 20.
Megalomastoma tortuosum, *Pfr. in Z.* f. *M.* 1847, p. 109, n. 3; *Gray, Cat. Cycl.* p. 30, n. 1.
Cataulus tortuosus, *Pfr. Consp.* n. 200; *Pneum. Mon.* p. 136.

Hab. The Nicobar Islands.

2. Cataulus Templemani.

Shell subperforate, oblong, rather fusiform, solid, striate, slightly shining, chestnut-coloured; spire oblong-turreted, with the apex rather pointed; whorls 8, moderately convex, the last furnished beneath with a sharp prominent keel, deeply striate round the umbilicus, which is very narrow; aperture circular, with the base slightly produced; peristome continuous, orange-coloured, shortly affixed above; right and left margins expanded and reflected; basal margin dilated downward, furnished with a canal, which is linear internally, and becomes broader at its termination. Length 20, breadth 7½ mill.

Pupina Templemani, *Pfr. in Proc. Z. S.* 1851; *Ic.* t. 31, f. 15, 16.
Cataulus Templemani, *Pfr. Consp.* n. 201; *Pneum. Mon.* p. 136.

Hab. Ceylon (Templeton).

3. Cataulus Layardi. B. M.

Shell subperforate, oblong, rather fusiform, solid, sculptured with distinct arcuate striæ, pale straw-coloured; spire oblong-turreted, with the apex rather pointed; whorls 8, nearly flat, the last furnished with a raised and compressed basal keel, radiately ribbed round the narrow umbilicus; aperture perpendicular, nearly circular, prolongated at its lower part by a rather open canal; peristome continuous, white, shortly affixed above, double; inner edge prominent; outer edge thickened and reflected, produced at its base, into an angle and grooved by a channel, which is narrow internally, broader at the aperture. Length 17½, breadth 7 mill.

Megalomastoma Layardii, *Gray* (*Brit. Mus.*), *Cat. Cycl.* p. 31, n. 4.
Pupina Templemani, *Pfr. in Proc. Z. S.* 1851.
Pupina Layardii, *Pfr. Ic.* t. 31, f. 17, 18.
Cataulus Layardii, *Pfr. Consp.* n. 202; *Pneum. Mon.* p. 137.

β. Brownish, with the suture obsoletely whitish-denticulate.

Hab. Ceylon (Mr. Layard).

4. Cataulus pyramidatus.

Shell subperforate, ovate-pyramidal, solid, marked with distinct, crowded, slightly arcuate striæ, silk-shining, dark chestnut-

coloured; spire turreted, with the apex rather pointed; whorls 7–7½, moderately convex, the last not lessened, scarcely produced beneath beyond the axis; basal keel compressed, scarcely dilated anteriorly; space between the keel and umbilicus rather broad, more deeply striate, turgid in the middle; aperture nearly circular; peristome white, continuous, shortly affixed, thickened, expanded horizontally and slightly reflected, scarcely produced at its lower part, and grooved by a middle-sized channel. Length 23, breadth 10 mill.

Cataulus pyramidatus, *Pfr. in Proc. Z. S.* 1852; *Ic.* t. 48, f. 11; *Pneum. Mon.* p. 137.

β Larger, with the basal part of the peristome angularly produced; length 29, breadth 12½ mill. (*Pfr. Ic.* t. 48, f. 9, 10.)

Hab. Ceylon.

5. Cataulus eurytrema.

Shell subperforate, oblong, rather fusiform, solid, with slightly-arcuated striæ, scarcely shining, chestnut-coloured; spire turreted, with the apex rather blunt; whorls 8½, convex, last narrower, with the base obliquely produced beyond the axis; basal keel strong, compressed, dilated gradually, like a tube, towards the peristome; aperture circular; peristome flesh-coloured, continuous, shortly affixed, thickened and reflected, with the left part of the basal margin grooved by a large canal, which is rather circular, and is produced inwards into a filiform crevice. Length 26, breadth 10 mill.

Cataulus eurytrema, *Pfr. in Proc. Z. S.* 1852; *Ic.* t. 48, f. 12, 13; *Pneum. Mon.* p. 138.

Hab. Ceylon.

6. Cataulus Thwaitesi.

Shell scarcely perforate, turreted, rather fusiform, solid, sculptured with crowded small longitudinal ribs, scarcely shining, violaceous-brown; spire ovate-turreted, with the apex rather pointed; suture impressed; whorls 7–7½, moderately convex, last a little lessened; basal keel very strong, compressed, spreading angularly, white; aperture perpendicular, circular; peristome double, white; inner edge deeply grooved at its lower part, outer edge emarginated on the penult whorl, otherwise thickened and reflexed, perforated at its base by a middle-sized channel. Length 19, breadth 7 mill.

Cataulus Thwaitesi, *Pfr. in Proc. Z. S.* 1852; *Ic.* t. 49, f. 9, 10; *Pneum. Mon.* p. 138.

Hab. Ceylon (Mr. Thwaites).

XI. PUPINELLA.

Operculum horny, many-whorled. Shell oval, covered with a thin horny periostraca. Aperture circular. Peristome reflexed, thickened, with a groove on the inner side of front near the axis.

Pupinella, *Gray, Cat. Cycl. Brit. Mus.* p. 33; *Pfr. in Z.* f. *M.* 1851, p. 150; *Consp.* p. 22; *Pneum. Mon.* p. 139.
Pupina, § 3, *Pfr. in Z.* f. *M.* 1847, p. 110.
Cyclostoma sp., *Sow.*

1. Pupinella pupiniformis. B. M.

Shell open, perforate, oblong, regularly and crowdedly striate under a lens, brown; spire gradually tapering towards the rather pointed apex; whorls 7, moderately convex, the last shorter and narrower than the penultimate one; columella divided by an oblique, linear groove, which terminates externally into an open hole; aperture perpendicular, nearly circular; peristome broadly expanded and reflected, with the margins joined by a very thin callus; columellar margin flat, expanded, thickened round the hole and produced into a rounded keel, which surrounds the umbilicus. Length 17, breadth 6⅔ mill.

Cyclostoma pupiniforme, *Sow. in Proc. Z. S.* 1842, p. 84; *Thes.* n. 174, p. 152, t. 28, f. 188.
Pupina Sowerbyi, *Pfr. in Z.* f. *M.* 1847, p. 110, n. 10; *Ic.* p. 200, t. 27, f. 7, 8.
Pupinella pupiniformis, *Gray, Cat. Cycl.* p. 34; *Pfr. Consp.* n. 203; *Pneum. Mon.* p. 139.

Hab. Island of Luzon, the province of Cagayan (H. Cuming).

XII. PUPINA.

Operculum thin, membranous, narrow-whorled, rather flat. Shell pupa-shaped, for the most part covered by a smooth callus. Peristome simple, thickened or reflected; columellar margin divided in the middle by a transverse channel; right margin forming a second channel at its insertion.

Pupina, *Vignard, in Ann. Sc. Nat.* xviii. 1829, p. 440; *Gray, Syn. Brit. Mus.* 1844, p. 91; *Proc. Z. S.* 1847, p. 132; *Cat. Cycl.* p. 33; *Pfr. in Z.* f. *M.* 1851, p. 150; *Consp.* p. 22; *Pneum. Mon.* p. 139.
Pupina (part), *Sow. Thes. Conch.* i. 1842, p. 17.
Pupina, § 2, *Pfr. in Z.* f. *M.* 1847, p. 110.

A. Shell not covered with a shining callous coat. . § 1. N. 1–3.
B. Shell shining, covered with a smooth callous coat . § 2. „ 4–8.

§ 1. *Shell not covered with a shining callous coat.*

1. Pupina Forbesi. B. M.

Shell deeply and shortly rimate, pupa-shaped, solid, foveolate and wrinkled, opaque, fulvous-flesh-coloured; spire turgid in the middle, with the apex conoidal, rather blunt; whorls 6, the upper four convex, regular, the fifth flattened on the side of the mouth, the last much narrower, descending anteriorly, ascending near the aperture, with the arcuate keel near the umbilical cleft; aperture nearly circular, with the base produced beyond the axis; peristome thick, fulvous-orange-coloured, reflected, with two channels; one very small at the insertion of the right margin, the second very deep and surrounded with thick callus between the arcuate body-margin and the left margin. Length 30, breadth 15 mill.

Pupina grandis, *Forbes, in Voy. Rattlesnake, App.* p. 380, t. 2, f. 10, not *Gray.*

Pupina Forbesi, *Pfr. Consp.* n. 204; *Ic.* t. 31, f. 19, 20; *Pneum. Mon.* p. 140.

Hab. The Louisiade Archipelago (Macgillivray).

2. Pupina humilis.

Shell scarcely subperforate, oblong-ovate, solid, little shining, pale brownish; whorls 6, the upper ones moderately convex, the last rounded, slender; aperture perpendicular, circular, with two channels; peristome thickened, expanded, with the right margin produced upwards, separated from the arcuate body-margin by a small sinus; columellar margin divided in the middle by a channel which runs backward arcuately, and is surrounded by thick callus. Length 16, breadth 7 mill.

Pupina humilis, *Jacq. in Ann. Sc. Nat.* 1841; *Hombr. & Jacq. Voy. Pol. Sud. Moll.* t. 10, f. 21–24; *Sow. in Proc. Z. S.* 1841, p. 103; *Thes.* n. 7, p. 18, t. 4, f. 2; *Reeve, Conch. Syst.* t. 181, f. 7, 8; *Pfr. Ic.* p. 204, t. 27, f. 15, 16; *Gray, Cat. Cycl.* p. 33, n. 2; *Pfr. Consp.* n. 205; *Pneum. Mon.* p. 140.

Pupina antiquata, *Sow. Conch. Man.* ed. ii. f. 526.

Hab. New Guinea (Hombr. and Jacq.).

3. Pupina Mindorensis.

Shell imperforate, pupa-shaped, rather solid, very closely striate, silk-shining, brown; spire oblong-conical, with the apex rather pointed; suture deep, bordered; whorls 7, convex, the last one narrower, rounded; aperture rather circular, oblique, its base being produced beyond the axis, sinuated above by a triangular callus, which is placed on the body of the penultimate whorl, near the insertion of the right margin; peristome broad, thickened,

angularly reflected, with the right margin suddenly lessened near the upper channel; columellar margin flat, truncated in a right angle, forming an open channel, which is dilated backward. Length 11, breadth 5 mill.

Pupina Mindorensis, *A. Adams & Reeve, Voy. Samarang, Moll.* p. 57, t. 14, f. 2; *Pfr. Ic.* t. 31, f. 21, 22; *Consp.* n. 206; *Pneum. Mon.* p. 141.

Hab. The southern part of Mindoro (Belcher).

§ 2. *Shell shining, covered with a smooth shining callous coat.*

4. Pupina bilinguis. B. M.

Shell oblong-ovate, pellucid, shining, horn-coloured; spire tapering gradually towards the apex, which is rather blunt; suture impressed, scarcely callous; whorls 6, the upper three convex, closely striate, the following ones rather flat, smooth, the last forming a little more than one-third of the whole length; aperture perpendicular, rather circular, with two open ascending channels; upper channel formed by a strong, triangular, tongue-shaped lamina near the insertion of the right margin; peristome rather thickened, shortly expanded, with the columellar margin flat, tongue-shaped, sharp, forming the second channel with the basal margin. Length 10, breadth 5 mill.

Pupina bilinguis, *Pfr. in Proc. Z. S.* 1850, p. 97; *Consp.* n. 207; *Forbes, in Voy. Rattlesnake, App.* p. 375; *Pfr. Pneum. Mon.* p. 142.

Hab. The north-east coast of Australia, Cape York (Macgillivray); Blackwood Bay and Restoration Island.

5. Pupina aurea.

Shell ovate, very shining, smooth, reddish gold-yellow; apex rather pointed; whorls 6, the upper ones rather flattened, the last about as long as the spire, deeply descending, and shortly ascending near the aperture; suture linear, callous, bordered; aperture perpendicular, circular, with an upper channel formed by an arcuate lamella on the body of the last whorl, which is detached above and entering; columella dissected deeply and obliquely; peristome simple, whitish, blunt, with the right margin sinuate, internally somewhat thickened at its upper part. Length 9, breadth 5 mill.

Pupina aurea, *Hinds, Ann. and Mag.* x. 1842, p. 83, t. 6, f. 6; *Voy. Sulphur, Zool.* t. 16, f. 20, 21; *Pfr. Ic.* p. 205, t. 27, f. 21, 22; *Gray, Cat. Cycl.* p. 33, n. 3; *Pfr. Consp.* n. 208; *Pneum. Mon.* p. 142.

Hab. New Ireland.

6. PUPINA THOMSONI. B. M.

Shell imperforate, pupa-shaped, extremely thin, smooth, pellucid, pale reddish horn-coloured; spire ovate-conical, with the apex rather blunt; suture not callous; whorls 6, the upper ones convex, the penultimate rather flat, the last narrower; aperture nearly circular, with two channels produced at its base beyond the axis; peristome slightly thickened, with the body-margin terminated on the right side into a tongue-shaped appendix, separated by a narrow equal sinus from the right margin, which is sinuate; columellar margin truncated, forming with the basal margin a channel, which is bordered by two callous bands diverging upwards. Length 8½, breadth 4 mill.

Pupina Thomsoni, *Forbes, in Voy. Rattlesnake, App.* p. 381, t. 3, f. 2; *Pfr. Pneum Mon.* p. 142.

Hab. Fitzroy Island, north-east coast of Australia (Macgillivray).

7. PUPINA BICANALICULATA. B. M.

Shell ovate-acuminate, rather thin, pellucid, smooth, shining, fulvous or glassy; whorls 6, the last shorter than the spire, descending regularly; suture distinct, impressed; aperture nearly perpendicular, circular, with two channels, the upper of which is formed by a small raised lamina on the body of the penultimate whorl near the insertion of the right margin; columella very narrowly carved obliquely; peristome simple, with the right margin indistinctly thickened. Length 6½, breadth 4 mill.

Pupina bicanaliculata, *Sow. in Proc. Z. S.* 1841, p. 103; *Thes.* n. 9, p. 19, t. 4, f. 1; *Pfr. Ic.* p. 204, t. 27, f. 19, 20; *Gray, Cat. Cycl.* p. 33, n. 1; *Pfr. Consp.* n. 209; *Pneum. Mon.* p. 143.

Hab. The Philippine Island of Zebu (H. Cuming).

8. PUPINA KERAUDRENI.

Shell pupa-shaped, diaphanous, smooth, very shining, yellowish-white; apex rather blunt; whorls 5, the last shorter than the spire, descending obliquely; suture callous; aperture perpendicular, circular, with a slight upper channel formed by a minute lamina on the body of the penultimate whorl; columella carved horizontally; peristome simple, blunt. Length 6⅓, breadth 3¼ mill.

Pupina Keraudreni, *Vignard, in Ann. Sc. Nat.* xviii. p. 440, t. 11; *Sow. in Proc. Z. S.* 1841, p. 103; *Thes.* n. 8, p. 19, t. 4, f. 3; *Pfr. Ic.* p. 206, t. 27, f. 23, 24; *Gray, Catal. Cycl.* p. 33, n. 4; *Pfr. Consp.* n. 210; *Pneum. Mon.* p. 143.

Pupina mitis, *Hinds, in Ann. and Mag.* x. p. 83, t. 6, f. 7.

Hab. New Guinea (Vignard); New Ireland (Hinds); and Salomon Islands.

XIII. REGISTOMA.

Operculum orbicular, thin, horny, many-whorled. Shell ovate, polished, callous. Aperture circular, rather entire. Peristome reflected, inner lip thin, simple, columellar margin slightly carved and channelled in the middle.

Registoma, *Van Hasselt, Allg. Konst. en Letterbode*, 1823; *Gray, Syn. Brit. Mus.* 1842, p. 91; *Proc. Z. S.* 1847, p. 182; *Cat. Cycl.* p. 31; *Pfr. in Z.* f. *M.* 1851, p. 151; *Consp.* p. 23; *Pneum. Mon.* p. 144.
Rhegostoma, *Agassiz, Nomencl. Zool.*
Rhexistoma, *Hermannsen, Ind. Gen. Malacoz.* ii. p. 390.
Moulinsia, *Grateloup, Act. Soc. Linn. Bord.* xi. 1841, p. 428.
Pupina sp., *Gray, in Ann. Nat. Hist.* vi. p. 77.
Pupina, § 1, *Pfr. in Z.* f. *M.* 1847, p. 110.

1. Registoma grande. B. M.

Shell ovate-cylindrical, smooth, very shining, rather diaphanous, sulphur or lemon-yellow, or reddish; apex blunt; whorls 5, convex, the last one shorter than the spire, deviating, rather flattened, bordered anteriorly with chestnut-colour; suture impressed, rather simple; aperture parallel with the oblique axis, rather angularly circular; columella dilated, flat, with an oblique notch, forming on the edge a small open hole, and externally a slightly prominent ridge; peristome broadly expanded, blunt. Length $11\frac{1}{2}$, breadth $7\frac{1}{3}$ mill.

Pupina grandis, *Gray, in Ann. Nat. Hist.* 1840, vi. p. 77.
Pupa aurantia, *Grateloup, in Act. Soc. Linn. Bord.* xi. p. 166.
Moulinsia Nunezii, *Grateloup, ibid.* p. 429, t. 3, f. 22, 23.
Pupina Nunezii, *Sow. in Proc. Z. S.* 1841, p. 101; *Reeve, Conch. Syst.* t. 181, f. 5, 6; *Sow. Thes.* n. 1, p. 17, t. 4, f. 8–11; *Pfr. Ic.* p. 201, t. 27, f. 1–6; *Dèsh. Traité élém.* t. 82, f. 17, 18.
Pupina Nunezii, *Sow. Conch. Man.* ed. ii. f. 527.
Registoma grande, *Gray, Cat. Cycl.* p. 32, n. 1; *Pfr. Consp.* n. 211; *Pneum. Mon.* p. 145.

Hab. The Philippine Islands of Luzon, Samar, Catanduanos, Siquijor, Leyte (H. Cuming).

2. Registoma pellucidum. B. M.

Shell obliquely-ovate, very smooth, pellucid, fulvous; apex blunt; whorls $5\frac{1}{2}$, the upper ones depressed, the penultimate prominent, the last shorter than the spire, deviating, shortly ascending anteriorly; suture rather simple; columella flattened, curved backward, perforated by a channel, which is nearly covered and ends in an open hole; aperture parallel to the

axis, rather circular; peristome slightly thickened, shortly expanded. Length 7½, breadth 5 mill.

Pupina pellucida, *Sow. in Proc. Z. S.* 1841, p. 102; *Thes.* n. 2, p. 17, t. 4, f. 18–20; *Pfr. Ic.* p. 202, t. 27, f. 17, 18.
Registoma pellucidum, *Gray, Cat. Cycl.* p. 32, n. 2; *Pfr. Consp.* n. 212; *Pneum. Mon.* p. 145.

Hab. The Philippine Islands of Luzon and Zebu (H. Cuming).

3. Registoma simile. B. M.

Shell ovate, rather elongate, smooth, shining, pellucid, pale fulvous; apex rather pointed; whorls 6, nearly flat, the last forming scarcely one-third of the whole length; suture linear, rather simple; columella thickened, vaulted, separated from the peristome by an oblique deep notch, terminating in an open hole, which is conspicuous on the back of the shell; aperture nearly circular, with its base slightly protracted, circular; peristome thickened, expanded, yellowish-white. Length 11, breadth 5½ mill.

Pupina similis, *Sow. in Proc. Z. S.* 1841, p. 102; *Thes.* n. 5, p. 18, t. 4, f. 4, 5; *Reeve, Conch. Syst.* t. 181, f. 3, 4; *Pfr. Ic.* p. 202, t. 27, f. 13, 14.
Registoma simile, *Gray, Cat. Cycl.* p. 32. n. 3; *Pfr. Consp.* n. 213; *Pneum. Mon.* p. 146.

Hab. Bolino, Island of Luzon, province of Zambales (H. Cuming).

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4. Registoma fuscum. B. M.

Shell ovate-acuminate, highly polished, shining, pellucid, brownish-fulvous; whorls 6½–7, convex, the last narrower than the penultimate, not equalling one-third of the total length; suture simple, slightly callous; columella short, rather convex, terminated by a rather horizontal notch, which ends in a triangular hole, not conspicuous on the back of the shell; aperture large, circular, nearly perpendicular; peristome dilated, flattened, expanded, orange-coloured or yellow, with the basal margin strongly arcuate. Length 11, breadth 5⅓ mill.

Pupina fusca, *Gray, in Ann. of Nat. Hist.* vi. 1840, p. 77.
Pupina vitrea, *Sow. in Proc. Z. S.* 1841, p. 102; *Thes.* n. 4, p. 10, t. 4, f. 6, 7; *Conch. Man.* ed. ii. f. 524; *Reeve, Conch. Syst.* t. 181, f. 1, 2; *Pfr. Ic.* p. 203, t. 27, f. 9–12; *Dèsh. Traité élém. Conch.* t. 82, f. 19, 20.
Registoma vitreum, *Hasselt. Allg. k. en. letterb.* 1823.
Registoma fuscum, *Gray, Cat. Cycl.* p. 32, n. 4; *Pfr. Consp.* n. 214; *Pneum. Mon.* p. 146.

Hab. Luzon and Mindanao (H. Cuming).

5. Registoma exiguum. B. M.

Shell imperforate, pupa-shaped, thin, smooth, pellucid, whitish-glassy; spire shortly conical above, with the apex rather pointed; whorls $5\frac{1}{2}$, scarcely convex, joined by a callous suture, last whorl more narrow beneath; aperture nearly circular, with the base proceeding beyond the axis; peristome slightly thickened, rather expanded; columellar margin dilated and truncated, separated from the basal margin by an oblique linear notch. Length 7, breadth scarcely 4 mill.

Pupina exigua, *Sow. in Proc. Z. S.* 1841, p. 103; *Thes.* n. 6, p. 18, t. 4, f. 17; *Pfr. Ic.* p. 204, t. 30, f. 38. (From *Sow.*)
Registoma exiguum, *Gray, Cat. Cycl.* p. 33, n. 5; *Pfr. Consp.* n. 215; *Pneum. Mon.* p. 147.

Hab. Island of Zebu, S. Nicolas (H. Cuming).

6. Registoma Nicobaricum.

Shell imperforate, ovate-conical, rather solid, highly-polished, shining, pale reddish-yellow; spire convex, conical above, with the apex rather pointed; suture linear; whorls 5, scarcely convex, the last one descending obliquely, shortly ascending near the aperture, rounded beneath; aperture nearly perpendicular, circular, marked with a minute callous knot near the insertion of the right margin; peristome simple, scarcely expanded; columellar margin slightly thickened, separated from the basal margin by a short rather ascending notch. Length 6, breadth 3 mill.

Pupina Nicobarica (Registoma), *Pfr. in Proc. Z. S.* 1852; *Ic.* t. 48, f. 28–31; *Pneum. Mon.* p. 147.

Hab. The Nicobar Islands.

XIV. CALLIA.

Operculum thin, membranous, narrow-whorled. Shell pupiform, covered with a smooth shining callus. Peristome subcontinuous, straight, scarcely thickened; columellar margin entire, above appressed-reflexed, altogether closing the perforation, which is conspicuous in young shells.

Callia, *Gray, Ann. of Nat. Hist.* vi. 1840, p. 77; *Syn. Brit. Mus.* 1842, p. 91; *Proc. Z. S.* 1847, p. 182; *Cat. Cycl.* p. 34; *Pfr. in Z.* f. *M.* 1847, p. 110; *Chemn.* ed. ii. *Cycl.* p. 207; *Z.* f. *M.* 1851, p. 152; *Consp.* p. 24; *Pneum. Mon.* p. 148.

Pupina spec., *Sow.*

1. Callia lubrica. B. M.

Shell ovate-acuminate, smooth, shining, pellucid, fulvous-glassy; whorls 5, moderately convex, the last much shorter than the spire, ascending anteriorly; suture impressed, callous; aperture nearly circular, with the base slightly produced beyond the axis; columella short, vaulted, altogether covering the perforation, forming a blunt angle without any notch with the peristome, which is blunt and slightly expanded. Length 9, breadth $5\frac{1}{2}$ mill.

Pupina lubrica, *Sow. in Proc. Z. S.* 1841, p. 102; *Thes.* n. 3, p. 18; t. 4, f. 12, 13; *Conch. Man.* ed. ii. p. 90, f. 528; *Reeve, Conch. Syst.* t. 181, f. 9, 10.

Callia lubrica, *Pfr. in Z.* f. *M.* 1847, p. 110; *Ic.* p. 207, t. 27, f. 30–33; *Gray, Cat. Cycl.* p. 34, n. 1; *Pfr. Consp.* n. 216; *Pneum. Mon.* p. 148.

β Larger; length 11, breadth 6 mill. (*Pfr. Ic.* t. 27, f. 28, 29.)

γ Smaller; length 7, breadth 4 mill. (*Sow. Thes.* t. 4, f. 14, 15; *Pfr. Ic.* t. 27, f. 25–27.)

Hab. The Philippine Islands of Luzon, Panay, Siquijor (H. Cuming).

B. *Operculum ovate, rarely subcircular, composed of a few gradually-increasing whorls; nucleus somewhat eccentrical.*

a. *Operculum thick, solid, with a more or less thick external shelly coat.*

Cyclostomina.

XV. JAMAICIA.

Operculum shelly, externally convex, composed of a small number of obliquely striate, rather coarse, sublamellous whorls. Shell umbilicate, globose-conical. Aperture circular. Peristome simple or double, straight or reflected.

Jamaicia (subgenus of Cyclostoma), *Adams, Contrib. to Conch.* n. 6, p. 88.

Jamaicia, *Pfr. in Z.* f. *M.* 1851, p. 152; *Consp.* p. 24; *Pneum. Mon.* p. 149.

1. Jamaicia anomala.

Shell umbilicate, globose-conical, rather thin, roughly decussated by spiral ridges and more crowded longitudinal ribs, fulvous, girdled with obsolete brown lines; spire conical, slightly truncate, whorls remaining $3\frac{1}{2}$, convex, the last one somewhat descending, shortly detached anteriorly; umbilicus middle-sized, pervious; aperture nearly perpendicular, rather circular; peristome simple, straight, slightly scolloped by the spiral ridges. Height 9, greatest breadth $12\frac{1}{2}$, least br. 10 mill.

Cyclostoma anomalum, *Adams, Contrib. to Conch.* p. 90; *Pfr. Ic.* n. 382, t. 46, f. 4–6.
Jamaicia anomala, *Pfr. Consp.* n. 217; *Pneum. Mon.* p. 149.
Hab. Jamaica.

2. Jamaicia Moussoniana.

Shell globose-conical, rather thin, roughly decussated by spiral ridges and more crowded longitudinal ribs, which are rather prickly near the deep suture; whitish-fulvous, with obsolete rows of reddish-brown points; spire convexly conical, shortly truncated; whorls remaining, $3\frac{1}{2}$, convex, the last one slightly detached anteriorly, more distinctly spirally furrowed round the narrow and open umbilicus; aperture nearly perpendicular, rather circular; peristome double; inner edge slightly prominent, outer edge angularly affixed to the penultimate whorl, otherwise broadly reflected backward, marked with rather scaly striæ and radiating plaits. Height $10\frac{1}{2}$, greatest breadth 14, least br. $10\frac{1}{2}$ mill.

Cyclostoma Moussonianum, *Adams, Contrib. to Conch.* p. 153; *Pfr. Ic.* n. 381, t. 46, f. 1–3.
Jamaicia Moussoniana, *Pfr. Consp.* n. 218; *Pneum. Mon.* p. 150.
Hab. Jamaica.

XVI. LICINA.

Operculum . . . ? Shell conical; last whorl usually produced out of the spiral line, straight. Mouth circular. Peristome somewhat reflexed, expanded.

Licina, *Brown, Jamaica*, p. 401 (part).
Licina, *Gray, Cat. Cycl.* p. 60; *Pfr. in Z.* f. *M.* 1851, p. 152; *Consp.* p. 24; *Pneum. Mon.* p. 150.
Cyclostoma sp., *Auctt.*

1. Licina labeo. B. M.

Shell oblong-turreted, truncate, solid, decussated by raised spiral and close-set longitudinal lines, shining, rather uniformly chestnut-coloured; spire convexly conical; whorls remaining 4, moderately convex, the last one rounded, marked anteriorly with irregular paler stripes; umbilicus funnel-shaped, rather pervious, more distinctly spirally furrowed; aperture nearly vertical, oblong-roundish, brown inside; peristome rather double, broadly expanded, continuous, shortly affixed to the penult whorl, with the right margin somewhat sinuate. Operc. —— ? Length 39, breadth $20\frac{1}{2}$ mill.

Licina rugosa, *Browne, Jam.* p. 401, t. 40, f. 5–7.
Klein, *Method. Ostrac.* §. 161, sp. 1, p. 55.
Davila, *Cat. Rais.* n. 997, p. 445.
Nerita labeo, *Müller, Hist. Verm.* ii. p. 180, n. 367.

Turbo Lincina magna, *Chemn. Conch. Cab.* ix. P. ii. p. 56, t. 123, f. 1061, 1062.
Turbo labeo, *Gmel. Syst.* p. 3605, n. 73; *Dillw. Cat.* ii. p. 865, n. 118.
Cyclostoma labeo, *Lam. Hist.* vi. p. 145, n. 9, *Ed. Desh.* p. 356 (part); *Encycl. Méth.* t. 461, f. 4; *Wood, Ind.* t. 32, f. 120; *Desh. in Enc. Méth.* ii. p. 40, n. 5; *Sow. Thes.* n. 154, p. 146, t. 28, f. 165; *Pfr. Ic.* t. 4, f. 1, 2, t. 42, f. 3.
Licina labeo, *Gray, Cat. Cycl.* p. 60, n. 1; *Pfr. Consp.* n. 219; *Pneum. Mon.* p. 151.

Hab. Jamaica.

2. Licina dubia.

Shell oblong-turreted, solid, spirally crowdedly striate, granularly decussated by more distant longitudinal lines, shining, yellowish-white, painted with narrow fulminating reddish-brown streaks; spire convexly turreted, shortly truncate; suture slightly channelled, fringed; whorls remaining $4\frac{1}{2}$, very convex, the last one cylindrical; umbilicus funnel-shaped, rather pervious; aperture slightly oblique, oblong-roundish, small, white inside; peristome double; inner edge expanded, incumbent, continuous; outer edge shortly affixed on the penultimate whorl, concentrically striated, much dilated laterally. Operc.——? Length 36, breadth 19 mill.

Turbo lincina, *Born, Test.* p. 355, t. 13, f. 5, 6.
Turbo dubius, *Gmel. Syst.* p. 3606, n. 75.
Cyclostoma Borni, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 329, t. 42, f. 1, 2.
Licina? Borni, *Pfr. Consp.* n. 220, p. 59.
Licina dubia, *Pfr. Pneum. Mon.* p. 152.

Hab. Jamaica.

3. Licina evoluta.

Shell oblong-turreted, truncate, rather thin, very minutely and closely decussated by spiral and longitudinal lines, scarcely shining, ash-gray, clouded with fulvous, and conspersed with reddish-brown points, which are arranged into indistinct bands; spire convexly conical; suture rather channelled; whorls remaining 4, moderately convex, the last one rounded, detached anteriorly, slightly descending, more distinctly spirally furrowed beneath; umbilicus not pervious; aperture perpendicular, roundish-ovate, brownish inside; peristome free, continuous, rather simple, expanded, with the columellar margin narrower. Operc.——? Length 36, breadth 20 mill.

Lister, *Hist. Conch.* t. 25, f. 23.
Cyclostoma evolutum, *Reeve, Conch. Syst.* p. 99, t. 185, f. 18; *Pfr. Ic.* n. 330, t. 9, f. 20, t. 42, f. 4; *Dèsh. Traité élém. Conch.* t. 82, f. 5, 6.

Cyclostoma subasperum, *Sow. Thes.* n. 143, p. 142, t. 28, f. 159.
Cistula decussata, *Humphr. MSS.*
Licina evoluta, *Gray, Cat. Cycl.* p. 61, n. 2; *Pfr. Consp.* n. 221; *Pneum. Mon.* p. 152.

Hab. East India?

4. Licina? Reeveana.

Shell ovate-oblong, truncate, solid, regularly decussated by raised spiral and longitudinal lines, violaceous or flesh-coloured-grayish, suture white-bordered, very closely denticulated; whorls remaining $4\frac{1}{2}$, convex, the last one more distinctly spirally furrowed beneath; umbilicus narrow; aperture perpendicular, ovate; peristome double; inner edge shortly expanded, outer edge dilated and reflected, angularly produced above, with the columellar margin very broad. Length 31, breadth 16 mill.

Cyclostoma decussatum, *Sow. Thes. Suppl.* n. 193, p. 165*, t. 31, *A.* f. 300, 301. Not *Lam.*
Cyclostoma Reeveanum, *Pfr. Ic.* n. 341, t. 43, f. 4, 5.
Licina? Reeveana, *Pfr. Consp.* n. 222; *Pneum. Mon.* p. 153.

Hab. West Indies.

XVII. CHOANOPOMA.

Operculum calcareous, nearly circular, with gradually-enlarging whorls, terminating externally in more or less prominent thin lamellæ, with a subeccentrical nucleus. Shell globose-turbinate or turreted, often truncate. Aperture rather oval or roundish. Peristome usually double, with the outer edge angularly expanded.

Licina, β *Gray, Syn. Brit. Mus.* 1842, p. 91; *Proc. Z. S.* 1847, p. 181.
Choanopoma, *Pfr. in Z.* f. *M.* 1847, p. 47–107; 1851, p. 153; *Gray, Cat. Cycl.* p. 48 (part); *Pfr. Consp.* p. 25; *Pneum. Mon.* p. 154.
Cyclostoma sp., *Auctt.*

A. Oblong or ovate-conic	§ 1.	N.	1–5.
B. Globose-conic			
1. With the outer edge of peristome waved	§ 2.	„	6–14.
2. With the outer edge of peristome flat .	§ 3.	„	15–17.
C. Depressed	§ 4.	„	18–21.

§ 1. *Shell oblong or ovate-conic.*

1. Choanopoma majusculum.

Shell subperforate, oblong, truncate, solid, minutely trellised by raised longitudinal and spiral lines, violaceous-brown; suture

elegantly furnished with small white teeth; whorls remaining 3, convex, last rounded; aperture rather perpendicular, nearly circular, lead-coloured inside; peristome thickened, continuous, shortly affixed, angularly ascending above, with the right margin receding and sinuate above, produced forward below the middle; columellar margin dilated, expanded. Operculum internally cartilaginous, horn-coloured. Length 26, breadth 15 mill.

Cyclostoma majusculum, *Morelet, Test. Noviss.* ii. p. 19, n. 129; *Poey, Mem.* ii. pp. 96, 105.
Cyclostoma mactum, *Poey, Memor. Hist. Nat. Cuba*, i. t. 8, f. 6–12; *Pfr. Ic.* n. 251, t. 36, f. 1, 2.
Choanopoma majusculum, *Pfr. Consp.* n. 223, p. 59.
Choanopoma mactum, *Pfr. Pneum. Mon.* pp. 154, 417.

Hab. Cuba.

2. Choanopoma decussatum.

Shell subperforate, ovate-conical, slightly truncate, rather decussated by obtusely-raised spiral lines and crowded longitudinal striæ, somewhat shining, yellowish-brown, elegantly painted with angulated reddish-brown longitudinal lines; spire regularly tapering; suture irregularly crenulate; whorls remaining 5, moderately convex, the last ventricose, slightly detached anteriorly, brownish-violaceous beneath; aperture perpendicular, rather ovate; peristome double, white; inner edge scarcely prominent; outer edge angularly expanded, produced above into an angle. Operculum typical. Length $14\frac{1}{2}$, breadth $6\frac{2}{3}$ mill.

Cyclostoma decussata, *Lam. Hist.* vi. p. 147, n. 118; *Ed. Desh.* p. 358; *Delessert, Recueil*, t. 29, f. 6; *Chenu, Ill. Conch.* t. 1, f. 6.
Cyclostoma decussatum, *Pfr. Ic.* n. 197, p. 178, t. 29, f. 10–13 (from *Deless.*), t. 38, f. 38, 39.
Cistula? decussata, *Gray, Cat. Cycl.* p. 58, n. 6.
Choanopoma decussatum, *Pfr. Consp.* n. 224; *Pneum. Mon.* p. 155.

Hab. Porto Rico.

3. Choanopoma granosum.

Shell perforate, turreted-oblong, rather thin, granularly decussated by rounded linear ridges and smaller more closely-set raised longitudinal lines, not shining, slightly diaphanous, pale horn-coloured, clouded with reddish-brown, forming, principally on the last whorl, broad spots and streaks; spire elongate, scarcely curvilinear, broadly truncate; suture deep, crenulate irregularly and obsoletely; whorls remaining 4, convex, the last scarcely larger than the preceding; aperture perpendicular, ovate-roundish; peristome yellowish, double; inner edge short,

incumbent; outer edge shortly affixed to the penultimate whorl, narrowly reflected backwards, rather angular above. Operculum (fide *Adams*) furnished with a well-raised spiral lamina of more than 3 whorls. Length 14, breadth 7½ mill.

Cyclostoma granosum, *Adams, Contr. to Conch.* n. 6, p. 93; *Pfr. Ic.* n. 373, t. 46, f. 10–12.
Choanopoma granosum, *Pfr. Consp.* n. 225; *Pneum. Mon.* p. 155.

β. With the decussating striæ more nodulous (*Adams, Contr.* p. 140).

Cyclostoma nodulosum, *Adams, Contr.* p. 91.

γ. With the last whorl widely detached (*Adams, Contr.* p. 140).

Hab. Jamaica.

4. Choanopoma pudicum.

Shell oblong-conic, thin, violaceous, decussately striate; spire raised, conical, with the acuminated apex truncate; whorls 5, convex; suture slightly channelled; aperture orbicular; lip dilated, sharp, reflected, divided laterally in two lobes, one auriculate, the other covering the umbilicus. Operculum typical. Length 15, breadth 11 mill.

Cyclostoma pudica, *Orb. Moll. Cub.* i. p. 259, t. 22, f. 6–8.
Cyclostoma pudicum, *Sow. Thes.* n. 147, p. 143, t. 31, f. 282? *Pfr. Ic.* n. 194, p. 177, t. 28, f. 19 (from *Sow.*)?
Choanopoma pudicum, *Pfr. in Z.* f. *M.* 1847, p. 107, n. 5; *Gray, Cat. Cycl.* p. 50, n. 8; *Pfr. Consp.* n. 226; *Pneum. Mon.* p. 156.

Hab. Cuba.

Note. To be compared Chondropoma Ottonis, and Tenebrosum.

5. Choanopoma pisum.

Shell globose-conoidal, truncate, thin, decussated by crowded blunt spiral ridges and more close raised longitudinal lines, not shining, dark brown; suture rather simple; whorls remaining 3–3½, convex, the last broader, more strongly spirally furrowed beneath; umbilicus pervious; aperture perpendicular, circular; peristome red, double; inner edge expanded; outer edge moderately reflected, slightly striate. Length 9, breadth 5⅔ mill.

Cyclostoma pisum, *Adams, Contrib. to Conch.* p. 9; *Pfr. Ic.* n. 372, t. 46, f. 7–9.
Cyclostoma virgineum, *Adams, Contrib.* n. 6, p. 90.
Choanopoma pisum, *Pfr. Consp.* n. 227; *Pneum. Mon.* p. 156.

Hab. Jamaica.

§ 2. *Shell globose-conic; outer edge of peristome waved.*

6. Choanopoma pulchrum. B. M.

Shell umbilicate, globose-conical, slightly truncate, thin, closely sculptured with longitudinal rib-like striæ, fulvous, with obsolete brown spots; whorls 4–5, convex, enlarging rapidly, the penultimate showing five obsolete keels, the last furnished above with about eight keels, and with more crowded, sharply-raised ridges beneath, round the middle-sized pervious umbilicus; aperture circular; peristome double; inner edge sharp, shortly prominent; outer edge broadly expanded, concentrically striate and lamellous, radiatingly folded and waved, not interrupted near the penultimate whorl, but narrower, shortly affixed. Operculum typical. Height 25, greatest breadth 29, least br. 22 mill.

Turbo pulcher, *Wood, Ind. Suppl.* t. 6, f. 4.
Cyclostoma pulchrum, *Gray, in Wood Suppl.* p. 36; *Sow. Genera of Sh.* n. 35, f. 2; *Sow. Spec. Conch.* f. 134, 135; *Reeve, Conch. Syst.* t. 184, f. 12; *Sow. Thes.* n. 117, p. 132, t. 27, f. 143, 144; *Pfr. Ic.* n. 69, p. 75, t. 10, f. 1, 2.
Cyclophora pulchra, 1 *Swains. Malac.* p. 336. (*Sow. Gen.*)
Choanopoma pulchrum, *Pfr. in Z.* f. *M.* 1847, p. 107, n. 1; *Gray, Cat. Cycl.* p. 49, n. 1; *Pfr. Consp.* n. 228; *Pneum. Mon.* p. 157.

Hab. Jamaica.

7. Choanopoma lincina. B. M.

Shell perforate, ovate-conoidal, usually truncate, coarsely decussated by sharply-raised longitudinal and spiral striæ, rather thin, violaceous, or flesh-coloured-whitish; suture deep; whorls, when entire, 6, remaining 4, cylindrical, the last one descending less obliquely; aperture nearly perpendicular, circular; peristome double; inner edge simple, scarcely prominent; outer edge broadly expanded, rather concave, radiated, scolloped externally, dilated above and on the left side, nearly cut out on the body of the penult whorl. Height 13, greatest breadth 16, least br. 12 mill.

Turbo lincina, *Linn. Syst.* ed. xii. p. 1239, n. 639; *Gmel. Syst.* p. 3605, n. 71; *Schröt. Einl.* ii. p. 43, n. 35; *Dillw. Cat.* ii. p. 864, n. 117; *Wood, Ind.* t. 32, f. 119?
Nerita licinia, *Müll. Hist. Verm.* ii. p. 178, n. 364?
Cyclostoma lincina, *Desh. in Lam. Hist.* ed. alt. viii. p. 368, n. 32; *Pfr. Ic.* n. 34, p. 43, t. 6, f. 1, 2.
Cyclostoma lincinum, *Sow. Thes.* n. 138, p. 140, t. 28, f. 148, 149.
Choanopoma lincina, *Pfr. in Z.* f. *M.* 1847, p. 107, n. 3; *Consp.* n. 229; *Pneum. Mon.* p. 158.

Choanopoma lincinum, *Gray, Cat. Cycl.* p. 49, n. 3.
Lister, *Hist.* t. 26, f. 24.
Petiv. *Gazoph.* t. 118, f. 11.
Sloane, *Hist. Jamaic.* ii. t. 240, f. 12, 13.
Browne, *Jamaica*, t. 40, f. 5.

Hab. Jamaica.

8. Choanopoma fimbriatulum. B. M.

Shell globose-conoidal, truncate, thin, with crowded spiral ridges, slightly decussated by very close-set longitudinal lines, not coarse, yellowish-white; suture deep; whorls remaining 3–3½, rounded, enlarging rapidly; umbilicus middle-sized, pervious; aperture rather perpendicular, circular; peristome double; inner edge scarcely prominent; outer edge continuous, broadly expanded, radiatingly folded and waved, slightly emarginate on the penult whorl. Operculum with five volutions, the outer edge of which is narrowly detached, nearly incumbent. Height 12, greatest breadth 17, least br. 12 mill.

Turbo lincina, *Chemn. Conch. Cab.* ix. P. ii. p. 154, t. 23, f. 1060, a ?
Annularia fimbriata, *Schumacher, Essai*, p. 196 ?
Cyclostoma fimbriatulum, *Sow. in Tank. Cat. App.* p. viii. n. 1015; *Sow. Spec. Conch.* f. 136; *Reeve, Conch. Syst.* t. 183, f. 5; *Sow. Thes.* n. 118, p. 132, t. 28, f. 145, 146; *Pfr. Ic.* n. 70, p. 76, t. 10, f. 3–5.
Choanopoma fimbriatulum, *Pfr. in Z.* f. *M.* 1847, p. 107, n. 7; *Gray, Cat. Cycl.* p. 49, n. 2; *Pfr. Consp.* n. 230; *Pneum. Mon.* p. 159.

Hab. Jamaica.

9. Choanopoma Chittyi.

Shell globose-conoidal, scarcely truncate, thin, with crowded and sharp spiral ridges, decussated by very crowded longitudinal lines, coarse, fulvid-whitish, sometimes obsoletely girdled with reddish-brown lines; spire convexly conical; suture deep; whorls 4–4½, very convex, the last marked with more distant spiral ridges beneath; umbilicus middle-sized, pervious; aperture perpendicular, circular; peristome double; inner edge produced; outer edge very broadly expanded, concentrically striate and imbricate, radiatingly waved and folded, marked with brown rays, densely scolloped externally, angularly produced above, slightly emarginate on the penult whorl. Operculum with 5 volutions, the outer edge of which is broad, nearly vertically raised and slightly reflected above. Height 12, greatest breadth 17, least br. 12 mill.

Cyclostoma Chittyi, *Adams, Contr. to Conch.* p. 1, 89; *Pfr. Ic.* n. 374, t. 46, f. 13, 14.
Choanopoma Chittyi, *Pfr. Consp.* n. 231; *Pneum. Mon.* p. 160.

Hab. Jamaica.

This species differs from Ch. fimbriatulum by its spiral ridges, much more crowded, rendering the surface coarse, by the produced inner peristome, and principally by its operculum.

10. Choanopoma scabriculum. B. M.

Shell conoidally-globose, scarcely truncate, thin, roughly trelliced by close-set spiral ridges and more crowded longitudinal lines, fulvous-whitish, sometimes girdled with obsolete reddish-brown lines; spire convex; whorls remaining 4–4½, rounded, enlarging gradually, the last cylindrical, more distinctly and distantly spirally furrowed in the umbilicus, which is middle-sized, rather compressed, scarcely pervious; aperture perpendicular, circular; peristome double; inner edge short; outer edge thin, broadly expanded all round, sinuate and auriculate above, emarginate on the penultimate whorl, imbricately striate concentrically, wavingly folded, and marked with brown rays. Operculum with 4 whorls, the outer edge of which is highly raised, expanded above, outer whorl very broad. Height 11, greatest breadth 17, least br. 12 mill.

Cyclostoma scabriculum, *Sow. Thes.* n. 119, p. 133, t. 28, f. 147; *Pfr. Ic.* (n. 71, p. 77, part.) n. 375, t. 46, f. 15, 16.
Cyclostoma amabile, *Adams, Contrib. to Conch.* p. 2.
Choanopoma scabriculum, *Pfr. in Z. f. M.* 1847, p. 107, n. 8; *Gray, Cat. Cycl.* p. 50, n. 4; *Pfr. Consp.* n. 232; *Pneum. Mon.* p. 160.

Hab. Jamaica.

11. Choanopoma Hillianum.

Shell globose-conoidal, thin, regularly trelliced by crowded spiral and longitudinal ridges, coarse, fulvous-whitish, with interrupted reddish-brown bands or lines; spire convexly-conoidal, scarcely truncate; whorls remaining 4, moderately convex, the last cylindrical, marked with stronger spiral ridges round the umbilicus, which is middle-sized, regular and open; aperture nearly perpendicular, circular; peristome double; inner edge scarcely prominent, slightly expanded; outer edge broad, angularly expanded, radiatingly folded, marked with brownish rays, sinuate and auriculate above, emarginate on the penultimate whorl. Operculum with 4 gradually-increasing volutions, the outer edge of which is highly raised, and angularly reflected above. Height 10, greatest breadth 15, least br. 11½ mill.

Cyclostoma Hillianum, *Adams, in Proc. Bost. Soc.* 1845, p. 11; *Pfr. Ic.* t. 10, f. 6–8 (scabriculum).
Choanopoma Hillianum, *Pfr. in Z.* f. *M.* 1847, p. 107, n. 12; *Gray, Cat. Cycl.* p. 52, n. 21; *Pfr. Consp.* n. 233; *Pneum. Mon.* p. 161.

β. White, girdled with brown, last whorl very shortly detached anteriorly.

Cyclostoma amandum, *Adams, Contr. to Conch.* p. 3.

γ. Last whorl more widely detached.

Cyclostoma aculeosum, *Adams, Contr. to Conch.* p. 2.

Hab. Jamaica.

This species differs from Ch. scabriculum by its more depressed shape, regular decussation, umbilicus, and operculum.

12. Choanopoma spinulosum.

Shell globose-conical, rather thin, dirty white, irregularly striped and rather banded with brown, trelliced by close-set blunt spiral ridges and more crowded sharp longitudinal ribs; spire conical, usually truncate; whorls (including the apex) 5, very convex, enlarging gradually, the last one cylindrical, shortly detached anteriorly; umbilicus middle-sized, pervious; aperture circular, parallel with the axis; peristome double; inner edge produced, striate; outer edge shortly reflected, radiately folded, slightly auriculate above. Height 11, greatest breadth 14, least br. 11 mill.

Cyclostoma spinulosum, *Adams, Contr. to Conch.* p. 1.
Choanopoma spinulosum, *Pfr. Consp.* n. 234; *Pneum. Mon.* p. 162.

Hab. Jamaica.

13. Choanopoma mite.

Shell turbinate-globose, shortly truncate, decussated by blunt spiral ridges and very crowded membranous ribs, not coarse, uniformly horn-coloured-whitish; spire convex, short; whorls remaining $3\frac{1}{2}$, convex, the last one cylindrical, more distinctly spirally ridged round the middle-sized, pervious umbilicus; aperture perpendicular, circular; peristome double; inner edge scarcely prominent; outer edge equally dilated and expanded all round, obsoletely waved, concentrically striate, rather angulated above and slightly emarginate on the penultimate whorl. Height 9, greatest breadth 13, least br. 10 mill.

Cyclostoma mite, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 332, t. 42, f. 7, 8.
Choanopoma mite, *Pfr. Consp.* n. 235, p. 59; *Pneum. Mon.* p. 163.

Hab. Jamaica.

14. Choanopoma ? Pretrei.

Shell turbinate, thin, sculptured with distant longitudinal lamellæ, crossed by transverse rows of prickles, uniformly white; spire conical, often slightly truncate; whorls 4–6, convex, the last detached anteriorly, descending obliquely; umbilicus middle-sized, pervious, spirally ridged internally; aperture nearly circular; peristome double; inner edge sharp, shortly produced; outer edge waved, shortly expanded into the plane of the aperture. Operc. ? Length 8, breadth 5 mill.

Cyclostoma Pretrei, *Orbigny, Moll. Cub.* i. p. 260, t. 22, f. 9–11; *Sow. Thes.* n. 136, p. 139, t. 31, f. 260; *Pfr. Ic.* n. 166, p. 154, t. 21, f. 9–12.
Choanopoma Pretrei, *Gray, Cat. Cycl.* p. 51, n. 13; *Pfr. Consp.* n. 236; *Pneum. Mon.* p. 163.

Hab. Cuba.

§ 3. *Shell globose-conic; outer edge of peristome flat.*

15. Choanopoma interruptum. B. M.

Shell perforate, ovate-conic, usually truncate, rather thin, smooth, shining, whitish, painted with 6–8 interrupted yellow bands; whorls 5, ventricose, the upper ones slightly longitudinally ribbed, violaceous-brownish, the last one cylindrical; aperture rather perpendicular, circular, of the same colour inside; peristome indistinctly double; inner edge short, obsolete; outer edge nearly continuous, arcuately emarginate on the penultimate whorl, broadly expanded otherwise, slightly concave anteriorly, with the upper margin angulated and somewhat inflexed; columellar margin dilated, expanded, not covering the narrow umbilicus. Operculum of few whorls, with the margin of the second whorl detached. Length 23, breadth 15 mill.

Cyclostoma interrupta, *Lam. Hist.* vi. p. 145, n. 10; *Ed. Desh.* viii. p. 356.
Cyclostoma ambigua, *Deless. Recueil.* t. 29, f. 5; *Reeve, Conch. Syst.* t. 183, f. 8; *Chenu, Ill. Conch.* t. 1, f. 5.
Cyclostoma interruptum, *Voigt, in Cuv. Thierr.* iii. p. 178; *Sow. Thes.* n. 141, p. 141, t. 28, f. 152; *Pfr. Ic.* n. 58, p. 63, t. 9, f. 1, 2.
Choanopoma interruptum, *Gray, Cat. Cycl.* p. 53, n. 27; *Pfr. Consp.* n. 237; *Pneum. Mon.* p. 164.

Hab. Jamaica.

16. Choanopoma lima. B. M.

Shell oblong-turbinate, truncate, closely and coarsely trelliced by crowded spiral and longitudinal raised lines, purplish-brown;

whorls remaining 4–4½, convex, the last furnished near the suture and round the middle-sized, rather compressed, not pervious umbilicus, with several stronger spiral ridges; aperture nearly perpendicular, with the base slightly produced, rather circular; peristome double; inner edge scarcely prominent, slightly expanded; outer edge broadly expanded, emarginate on the penultimate whorl, rather concave and concentrically striate anteriorly, dilated and auriculate above. Operculum typical. Length 21, breadth 14 mill.

Cyclostoma lima, *Adams, in Proc. Bost. Soc.* 1845, p. 11; *Pfr. in Z.* f. *M.* 1846, p. 46; *Ic.* n. 35, p. 44, t. 6, f. 3–6; *Sow. Thes. Suppl.* n. 197, p. 167*, t. 31, *B.* f. 324, 325.
Choanopoma lima, *Pfr. in Z.* f. *M.* 1847, p. 107, n. 2; *Gray, Cat. Cycl.* p. 50, n. 5; *Pfr. Consp.* n. 238; *Pneum. Mon.* p. 165.

β. A little smaller, fulvous, with the concentrical lines more minute.

Cyclostoma Blandianum, *Adams, Contrib. to Conch.* p. 3.

Hab. Jamaica.

17. Choanopoma lincinellum.

Shell rimate-perforate, compressedly conical, thin, sculptured with very crowded longitudinal striæ, crossed by obsolete spiral lines, which are more distinct on the lower part, silk-shining, grayish-fulvous, painted obsoletely with interrupted brownish bands; spire conical, often truncate; whorls 5, rounded, the last one protracted horizontally, rather compressed laterally, detached anteriorly; aperture perpendicular, circular; peristome free, continuous, double; inner edge sharp, shortly prominent; outer edge shortly expanded into the plane of the aperture, rather equally broad all round. Operculum with the outer margin of the whorls moderately raised. Height 12, greatest breadth 14, least br. 10 mill.

Cyclostoma lincinella, *Lam. Hist.* vi. p. 148, n. 22; *Ed. Desh.* viii. p. 359, n. 21; *Pfr. Ic.* n. 164, p. 153, t. 21, f. 3–5.
Cyclostoma lincina, *Lam. Encycl. Méth.* t. 461, f. 2.
Cyclostoma compressum, *Gray, in Wood Suppl.* p. 36.
Cyclostoma lincinellum, *Sow. Thes.* n. 137, p. 140, t. 28, f. 150, 151.
Turbo compressus, *Wood, Ind. Suppl.* t. 6, f. 42.
Cyclophora lincina, *Swains. Malac.* p. 336.
Choanopoma lincinella, *Pfr. in Z.* f. *M.* 1847, p. 107, n. 4.
Choanopoma lincinellum, *Gray, Cat. Cycl.* p. 54, n. 28; *Pfr. Consp.* n. 239; *Pneum. Mon.* p. 165.

Hab. Jamaica? (Humphrey, Sowerby); Haiti.

§ 4. *Shell depressed.*

18. Choanopoma ? alatum.

Shell conoidally depressed, rather solid, slightly sculptured with unequal crowded oblique ribs, scarcely diaphanous, whitish, painted with narrow, very pale horn-coloured bands; spire very shortly conoidal, rather pointed; suture simple; whorls 4, moderately convex, the last one nearly cylindrical, scarcely descending, and clouded with violaceous spots anteriorly; umbilicus wide, open; aperture diagonal, rather circular, lilaceous-brownish inside; peristome rather double, with the outer and inner edge joined and expanded on the right and basal margin; outer edge dilated above into a wing, and slightly reflected on the left side. Operculum ——? Height 8, greatest breadth 16, least br. 13 mill.

Cyclostoma alatum, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 326, t. 41, f. 35–37.

Choanopoma ? alatum, *Pfr. Consp.* n. 240, p. 60; *Pneum. Mon.* p. 166.

Hab. San Yago de Cuba.

19. Choanopoma ? solutum.

Shell depressed, closely sculptured with thread-like longitudinal ribs, silk-shining, diaphanous, whitish, with interrupted reddish-brown spiral lines; spire slightly raised, mucronate; suture slightly channelled and obsoletely denticulate; whorls 5, convex, the last cylindrical, descending and detached anteriorly, spirally furrowed in the very broad umbilicus; aperture oblique, nearly circular; peristome double; inner edge continuous, straight, prominent; outer edge white, expanded all round in a right angle, dilated above, inflexed and joined to the penultimate whorl. Height $5\frac{1}{2}$, greatest breadth 13, least br. 10 mill.

Cyclostoma solutum, *Rich. in Mus. Cuming; Pfr. Ic.* n. 293, t. 39, f. 8–10.

Choanopoma ? solutum, *Pfr. Consp.* n. 241, p. 60; *Pneum. Mon.* p. 167.

Hab. Haiti.

20. Choanopoma Adolfi.

Shell conoidally semiglobose, rather thin, regularly granulate and decussated by radiating and spiral raised lines, diaphanous, fulvous, girdled with interrupted reddish-brown lines; spire convexly conoidal, mucronulate; suture fringed with irregular and distant knots; whorls $4\frac{1}{2}$, convex, last rounded, furnished with several keel-like ridges, which surround the middle-sized umbilicus; aperture rather oblique, circular; peristome

double; inner edge continuous, shortly produced; outer edge expanded, concentrically striate, slightly waved, marked with reddish-brown rays, dilated above into a vaulted appendix. Height $4\frac{2}{3}$, greatest breadth 8, least br. $6\frac{1}{4}$ mill.

Cyclostoma Adolfi, *Pfr. in Proc. Z. S.* 1852; *Ic.* n. 397, t. 48, f. 5–8.

Choanopoma Adolfi, *Pfr. Pneum. Mon.* p. 167.

Hab. Haiti (Mr. Sallé).

21. Choanopoma tentorium.

Shell conoidal, rather solid, acutely trelliced by crowded spiral ridges and longitudinal lines; silk-shining, pale fulvous, sometimes painted with red points; spire conoidal, rather pointed; suture regularly fringed; whorls 5, convex, the last cylindrical; umbilicus wide, conical; aperture oblique, roundish, rather angular; peristome double; inner edge shortly produced; outer edge expanded, bell-shaped, with the margin slightly waved. Height 4, greatest breadth $6\frac{1}{2}$, least br. $5\frac{1}{2}$ mill.

Cyclostoma tentorium, *Pfr. in Z.* f. *M.* 1850, p. 77; *Ic.* n. 279, t. 38, f. 16–18.

Choanopoma tentorium, *Pfr. Consp.* n. 242; *Pneum. Mon.* p. 168.

Hab. Haiti (Mr. Sallé).

XVIII. ADAMSIELLA.

Operculum orbicular, thin, rather cartilaginous; whorls few, enlarging gradually, with the outer edge rather detached; nucleus subcentral. Shell pupa-shaped or oblong-turreted; aperture small, rather circular; peristome for the most part double, more or less expanded or reflexed.

Adamsiella, *Pfr. in Z.* f. *M.* 1851, p. 155; *Consp.* p. 27; *Pneum. Mon.* p. 168.

Cyclostoma sp., *Auctt.*

Choanopoma sp., *Gray.*

A. Pupiform.
  1. Last whorl not detached anteriorly.
    a. Suture simple . . . . § 1. *n.* 1–3
    b. Suture crenate . . . . 2. „ 4–3
  2. Last whorl detached . . . . 3. „ 6–8
B. Oblong-turreted . . . . . 4. „ 9–12

§ 1. *Shell pupiform, last whorl not detached, in front; suture simple.*

1. Adamsiella mirabilis.

Shell oblong-conic, thin, regularly decussated by close-set spiral and more crowded longitudinal raised lines, not coarse, dia-

phanous, not shining, very pale horn-coloured, with slightly-interrupted reddish-brown bands, and with a single row of rather square spots of the same colour along the suture, which is simple and deep; spire convexly conic, shortly truncate; whorls remaining 4, rounded, the last scarcely larger than the preceding; umbilicus open, pervious; aperture perpendicular, rather circular; peristome white, double; inner edge affixed or shortly prominent; outer edge continuous, very shortly affixed to the penultimate whorl, narrowly and equally expanded or reflected, slightly angulated above. Operculum typical. Length 15, breadth 8⅓ mill.

Turbo mirabilis, *Wood, Ind. Suppl.* t. 6, f. 22.
Cyclostoma mirabile, *Gray, in Wood Suppl.* p. 36; *Pfr. Ic.* n. 127, p. 123, t. 14, f. 17–19. Not *Sowerby.*
Cyclostoma mirabilis, *Desh. in Lamk. Hist.* viii. p. 371, n. 40.
Cyclostoma decussatulum, *Adams, Contrib. to Conch.* p. 4.
Adamsiella mirabilis, *Pfr. Consp.* n. 243; *Pneum. Mon.* p. 168.

Hab. Jamaica.

2. Adamsiella miranda.

Shell oblong-conical, truncate, thin, very minutely trelliced, not shining, whitish, painted with brown spots, which are arranged in spiral rows, the spots along the suture being larger, square; whorls remaining 4½–5, very convex, the last cylindrical, not detached; umbilicus very narrow, scarcely pervious; aperture perpendicular, nearly circular; peristome double; inner edge straightly produced; outer edge dilated, expanded into a right angle, striate concentrically, auriculate above, emarginate on the penultimate whorl and on the left side. Length 17, breadth 9 mill.

Cyclostoma mirandum, *Adams, Contr. to Conch.* p. 4; *Pfr. Ic.* n. 343, t. 43, f. 8, 9.
Cyclostoma mirabile, *Sow. Thes.* n. 153, p. 145, t. 28, f. 164?
Adamsiella miranda, *Pfr. Consp.* n. 244; *Pneum. Mon.* p. 169.

Hab. Jamaica.

3. Adamsiella pulchrior. B. M.

Shell pupa-shaped, ovate-turreted, rather solid, very minutely decussated by crowded scarcely impressed longitudinal and spiral lines, silk-shining, pale horn-coloured, with a single broad, dark chestnut-coloured band; spire convexly elongate, shortly truncate; suture slight, simple; whorls remaining 4–4½, moderately convex, the last one scarcely over-passing the penultimate; umbilicus punctiform, pervious; aperture rather perpendicular, oblong-roundish, of the same colour inside; peristome white,

continuous, shortly affixed, thickened, shortly reflected backwards, rather angulated above. Length 12, breadth $7\frac{1}{2}$ mill.

Cyclostoma pulchrius, *Adams, in Proc. Bost. Soc.* 1845, p. 11 (*Contrib. to Conch.* p. 129).
Cyclostoma Binneyanum, *Adams, MSS. Olim; Pfr. in Z.* f. *M.* 1846, p. 47 ; *Ic.* n. 128, p. 124, t. 14, f. 12–14.
Choanopoma Binneyanum, *Gray, Cat. Cycl.* p. 52, n. 20.
Adamsiella pulchrior, *Pfr. Consp.* n. 245 ; *Pneum. Mon.* p. 170.

β. Horn-coloured-brownish, banded and spotted obsoletely, with the decussating striæ a little more distinct.

Hab. Jamaica.

§ 2. *Shell pupiform, last whorl not detached, in front; suture crenate.*

4. Adamsiella variabilis. B. M.

Shell narrowly umbilicate, ovate-pyramidal, usually truncate, decussated by very crowded longitudinal folds and transverse striæ, yellowish, with several series of brown spots, often dark violaceous above ; suture irregularly and distantly crenate ; whorls remaining 4, convex, the last cylindrical ; aperture perpendicular, circular ; peristome indistinctly double ; inner edge short, scarcely prominent ; outer edge continuous, rather equally expanded all round, affixed on the penultimate whorl, angulated above. Length 14, breadth 8 mill.

Cyclostoma articulatum, *Sow. Thes.* n. 144, p. 142, t. 28, f. 160, 161. Not *Gray.*
Cyclostoma variabile, *Adams, Contrib. to Conch.* p. 3 ; *Pfr. Ic.* n. 276, t. 38, f. 7, 8.
Cyclostoma mutatum, *Adams, Contrib. to Conch.* p. 154.
Choanopoma articulatum, *Pfr. in Z.* f. *M.* 1847, p. 107, n. 10 ; *Gray, Cat. Cycl.* p. 52, n. 17.
Adamsiella variabilis, *Pfr. Consp.* n. 246 ; *Pneum. Mon.* p. 171.

Hab. Jamaica (Adams) ; Demerara (Sowerby).

This shell is very variable, its decussating striæ being more or less crowded and raised ; peristome more or less thickened and reflected, often concentrically striate.

5. Adamsiella Grayana. B. M.

Shell narrowly umbilicate, ovate-pupiform, truncated, dark, violaceous-brownish ; suture furnished with distant white knots ; whorls remaining $4\frac{1}{2}$, convex, the upper ones strongly ribbed longitudinally, decussated by minute spiral striæ, the following ones regularly and closely decussated, the last one not overpassing the preceding ; aperture perpendicular, circular ; peristome indistinctly double, white, yellow, or reddish ; inner edge

simple, shortly prominent; outer edge very shortly fixed to the penultimate whorl, equally expanded all round into the plane of the aperture. Length 14, breadth 8 mill.

Cyclostoma obscurum, *Gray, MSS. Olim; Sow. Thes.* n. 157, p. 147, t. 28, f. 169.

Cyclostoma Grayanum, *Pfr. in Z.* f. *M.* 1846, p. 43; *Ic.* n. 42, p. 49, t. 6, f. 15, 16; *Adams, Cat. Shells Jam.* 1847 (*Contrib. to Conch.* p. 15).

Choanopoma Grayanum, *Pfr. in Z.* f. *M.* 1847, p. 107, n. 11; *Gray, Cat. Cycl.* p. 52, n. 18.

Adamsiella Grayana, *Pfr. Consp.* n. 247; *Pneum. Mon.* p. 171.

β. With the peristome more distinctly double, concentrically striate, inner edge prominent.

Cyclostoma concentricum, *Adams, Contrib. to Conch.* p. 4.

γ. With the peristome broader expanded, concentrically striate, reddish-brown, left margin slightly waved.

Cyclostoma serriferum, *Adams, Contrib. to Conch.* p. 4.

Hab. Jamaica.

§ 3. *Shell pupiform, last whorl detached.*

6. Adamsiella moribunda.

Shell perviously perforate, oblong, rather solid, truncate, very minutely decussated by raised concentrical and longitudinal lines, the ninth or tenth of which appears stronger than the others, whitish-yellow, obsoletely spotted along the slightly crenated suture; whorls remaining 4, convex, the last rounded, shortly detached anteriorly; aperture nearly parallel to the axis, rather circular; peristome double; inner edge shortly prominent; outer edge continuous, shortly reflected all round, angularly auriculate above. Length 12, breadth 6½ mill.

Cyclostoma moribundum, *Adams, Contrib. to Conch.* p. 5; *Pfr. Ic.* n. 342, t. 43, f. 6, 7.

Adamsiella moribunda, *Pfr. Consp.* n. 248; *Pneum. Mon.* p. 173.

Hab. Jamaica.

7. Adamsiella intermedia.

Shell open, perforate, oblong-pupiform, rather solid, minutely trellised, not shining, fulvous-whitish, with obsolete rows of reddish-brown spots; spire oblong, truncate; suture obsoletely crenulate; whorls remaining 4, moderately convex, the last one slender, detached anteriorly; aperture oblique, circular; peristome double; inner edge shortly prominent; outer edge concentrically striate, moderately expanded into a right angle. Length 13, breadth 7 mill.

Cyclostoma intermedium, *Adams, Contrib. to Conch.* p. 5.
Adamsiella intermedia, *Pfr. Consp.* n. 249; *Pneum. Mon.* p. 173.

Hab. Jamaica.

Note. This species is intermediate between Adamsiella variabilis and monstrosa.

8. Adamsiella monstrosa.

Shell perforate, oblong-pupiform, truncate, rather thin, regularly decussated, scarcely shining, whitish or pale cinnamon-coloured, spotted and marbled with reddish-brown; suture slightly crenulate; whorls remaining 4–4½, narrow, convex, the last one more slender, cylindrical, widely detached and descending anteriorly; aperture diagonal, small, circular; peristome double; inner edge shortly prominent; outer edge very much dilated, convexly reflected, rather angulated above. Length 14, breadth 6½ mill.

Cyclostoma monstrosum, *Adams, Contrib. to Conch.* p. 5; *Pfr. Ic.* n. 259, t. 36, f. 17, 18.
Adamsiella monstrosa, *Pfr. Consp.* n. 250; *Pneum. Mon.* p. 173.

Hab. Jamaica.

§ 4. *Shell oblong-turreted.*

9. Adamsiella xanthostoma. B. M.

Shell open, perforate, oblong-turreted, truncate, solid, with the surface waved by blunt spiral ridges, very crowdedly striate and distantly furrowed longitudinally, grayish-brown or pale, opaque; spire regularly tapering, broadly truncate; suture deep, rather simple; whorls remaining 4½–5, rounded, enlarging slowly; aperture perpendicular, nearly circular, flesh-coloured inside; peristome orange-coloured or white, double; inner edge simple, very short; outer edge continuous, dilated and expanded horizontally, slightly waved, rather angular above. Length 13, breadth 6½ mill.

Cyclostoma xanthostoma, *Sow. Thes.* n. 149, p. 144, t. 29, f. 195; *Pfr. Ic.* n. 118, p. 115, t. 14, f. 6–8.
Cyclostoma tenuistriatum, *Adams, Contrib. to Conch.* p. 8.
Choanopoma xanthostoma, *Gray, Cat. Cycl.* p. 53, n. 23.
Adamsiella xanthostoma, *Pfr. Consp.* n. 251; *Pneum. Mon.* p. 174.

Hab. Jamaica.

10. Adamsiella pinguis.

Shell umbilicate, oblong-turreted, truncate, solid, with the surface waved by blunt spiral ridges, very crowdedly striate longitudinally under a lens, oily-shining, cinnamon-brownish; spire regularly tapering, broadly truncate; suture deep, simple; whorls

remaining 4, convex, last rounded; aperture rather perpendicular, nearly circular; peristome white, double; inner edge slightly expanded, affixed; outer edge continuous, expanded horizontally, very shortly affixed to the penultimate whorl, angulated above. Length 12½, breadth 6 mill.

Cyclostoma pingue, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 321, t. 41, f. 20, 21.
Adamsiella pinguis, *Pfr. Consp.* n. 252, p. 60; *Pneum. Mon.* p. 175.

Locality unknown.

11. ADAMSIELLA IGNILABRIS.

Shell open, perforate, elongate-conical, solid, crowdedly folded longitudinally, silk-shining, brownish or greenish-white; spire elongate, pointed, often slightly truncate; suture deep, simple; whorls 7 (remaining after truncation 4½), convex, last rounded; aperture perpendicular, ovate-roundish; peristome fire-red or white, double; inner edge scarcely prominent; outer edge thickened, angularly reflected all round. Length (after truncation) 11, breadth not quite 5 mill.

Cyclostoma ignilabre, *Adams, Contr. to Conch.* p. 9; *Pfr. Ic.* n. 281, t. 38, f. 23, 24.
Adamsiella ignilabris, *Pfr. Consp.* n. 253; *Pneum. Mon.* p. 175.

Hab. Jamaica.

12. ADAMSIELLA CHLOROSTOMA. B. M.

Shell perforate, cylindrical-turreted, truncate, solid, very closely folded longitudinally, decussated by impressed spiral lines, violaceous-blackish; whorls remaining 5, convex, increasing regularly and slowly; aperture perpendicular, nearly circular, dark lead-coloured inside; peristome yellow, rather double; inner edge scarcely prominent or indistinct; outer edge horizontally expanded all round, with the upper and basal margins rather angularly dilated. Length 12, breadth 5 mill.

Cyclostoma chlorostoma, *Sow. Thes.* n. 156, p. 146, t. 28, f. 168; *Pfr. Ic.* n. 117, p. 115, t. 14, f. 2–3.
Cyclostoma sericeum, *Féruss. Mus.*
Choanopoma chlorostoma, *Gray, Cat. Cycl.* p. 53, n. 24.
Adamsiella chlorostoma, *Pfr. Consp.* n. 254; *Pneum. Mon.* p. 176.

Hab. Demerara.

XIX. LITHIDION.

Operculum subcircular, shelly; whorls rather rapidly enlarged, with a strong, convex, subcentral keel and simple edges. Shell depressed, broadly umbilicated, open. Aperture rather circular. Peristome simple, often thickened.

Lithidion, *Gray, Cat. Cycl.* p. 35; *Pfr. in Z.* f. *M.* 1851, p. 156; *Consp.* p. 28; *Pneum. Mon.* p. 176.
Cyclostoma sp., *Sow. Petit, &c.*

1. Lithidion sulcatum. B. M.

Shell convex-depressed, solid, girdled with rather sharp raised spiral ridges, slightly shining, blueish-white; spire somewhat raised, with the apex blueish, mucronulate; whorls 5, moderately convex, last rounded, deflected anteriorly; umbilicus wide, smooth internally; aperture very oblique, rather circular, brown inside; peristome rather thickened, slightly expanded, with the margins approximate, right margin sinuate. Height 5, greatest breadth 10, least br. 9 mill.

Cyclostoma lithidion, *Sow. Thes.* n. 61, p. 111, t. 31, f. 262; *Pfr. Ic.* n. 160, p. 150, t. 20, f. 20–22.
Lithidion sulcatum, *Gray, Cat. Cycl.* p. 35, n. 1; *Pfr. Consp.* n. 255; *Pneum. Mon.* p. 176.

Hab. Yemen, Arabia (Powis, Sowerby).

2. Lithidion desciscens.

Shell widely umbilicate, depressed-semiglobose, slightly and closely spirally furrowed above, whitish; spire convex; whorls $4\frac{1}{2}$, moderately convex, the last one cylindrical, suddenly deflexed anteriorly, smooth beneath; aperture nearly horizontal, roundish, sublunate, white inside; peristome thickened, with the margins distant, joined by callus, basal margin reflexed, columellar margin suddenly ascending in a curve. Height $5\frac{1}{2}$, greatest breadth 10, least br. $8\frac{1}{2}$ mill.

Cyclostoma desciscens, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 250, t. 35, f. 25, 26.
Lithidion desciscens, *Pfr. Consp.* n. 256, p. 60; *Pneum. Mon.* p. 177.

Hab. Socotora.

3. Lithidion Souleyetianum.

Shell convex-conoidal, solid, sculptured above with six raised spiral ridges and with crowded transverse striæ, shining, brown-

ish-flesh-coloured; spire conoidal, with the apex rather blunt; whorls 5, last cylindrical, deflexed anteriorly, smooth beneath; umbilicus wide, open; aperture very oblique, saffron-coloured inside, irregularly rounded; peristome white, slightly thickened, interrupted, with the margins distant, upper margin rather expanded, basal margin shortly reflexed. Height 4½, greatest breadth 8, least br. 7 mill.

Cyclostoma Souleyetianum, *Petit, in Journ. Conch.* 1850, i. p. 52, t. 3, f. 6; *Pfr. Ic.* n. 249, t. 35, f. 23, 24.
Cyclostoma paradoxum, *Pfr. in Z.* f. *M.* 1849, p. 128.
Lithidion Souleyetianum, *Pfr. Consp.* n. 257; *Pneum. Mon.* p. 177.

Hab. The Island of Abd-el-Goury, near Socotora (Guillaim).

4. Lithidion depressum.

Shell depressed, solid, sculptured above with six spiral ridges, slightly shining, whitish, marbled with pale horn-coloured flames and angular streaks; spire flat, with the apex slightly prominent, nipple-shaped; suture deep; whorls 4½, moderately convex, the last one keeled at its upper periphery, rounded and smooth beneath; umbilicus wide, deep; aperture diagonal, rather circular; peristome simple, straight, slightly interrupted, with the upper margin emarginate. Height 4, greatest breadth 12, least br. 10 mill.

Cyclostoma depressum, *Sow. Thes. Suppl.* n. 185, p. 161*, t. 31 *B.* f. 306, 307; *Pfr. Ic.* n. 247, t. 35, f. 17–19.
Lithidion depressum, *Pfr. Consp.* n. 258; *Pneum. Mon.* p. 178.

Locality unknown.

5. Lithidion niveum.

Shell broadly umbilicate, rather depressed, solid, indistinctly spirally striate above, slightly shining, white; spire little raised, mucronate; suture deep; whorls 4½, moderately convex, the last one keeled above the middle, convex and smooth beneath; aperture diagonal, rather circular, flesh-coloured inside; peristome rather simple, shortly interrupted, with the margins joined by thin callus, upper margins sinuate, slightly expanded. Height 5, greatest breadth 11, least br. 9 mill.

Cyclostoma niveum, *Petit, in Journ. Conch.* 1850, i. p. 52, t. 3, f. 7; *Pfr. Ic.* n. 248, t. 35, f. 20–22.
Lithidion niveum, *Pfr. Consp.* n. 259; *Pneum. Mon.* p. 178.

Hab. Madagascar.

XX. OTOPOMA.

Operculum shelly, solid; whorls convex in the centre, with simple edges. Shell conically subglobose or depressed. Aperture subovate. Peristome straight or slightly expanded, with the columellar margin for the most part dilated, covering part of the axis, or closing the umbilicus.

Otopoma, *Gray, Cat. Cycl.* p. 35; *Pfr. in Z.* f. *M.* 1851, p. 157; *Consp.* p. 29; *Pneum. Mon.* p. 179.
Cyclostoma sp., *Auctt.*

A. Umbilicus perfectly closed . . . . § 1. N. 1.
B. Umbilicus more or less open.
1. Right margin of the peristome expanded. § 2. „ 2–6.
2. Right margin straight . . . . § 3. „ 7–14.
3. Right margin slightly expanded, deeply sinuous . . . . . § 4. „ 15.

§ 1. *Axis with the umbilicus perfectly closed.*

1. Otopoma clausum.

Shell orbiculate-convex, rather solid, slightly and crowdedly spirally furrowed above, smooth beneath, flesh-coloured-whitish; spire short, blunt; suture flat, chestnut-coloured in the upper whorls; whorls 4, scarcely convex, the last one descending anteriorly, rather flattened beneath; aperture oblique, roundish-ovate, rather angular above, yellowish inside; peristome simple, straight, with distant margins, right margin sinuate, columellar margin dilated into a glassy, broad, reflexed lamina, which is affixed on all sides, and covers perfectly the umbilicus. Height 8, greatest breadth $14\frac{1}{2}$, least br. $11\frac{2}{3}$ mill.

Cyclostoma clausum, *Sow. Thes.* n. 104, p. 128, t. 31, f. 266, 267; *Pfr. Ic.* n. 157, p. 147, t. 20, f. 13–15.
Otopoma clausum, *Gray, Cat. Cycl.* p. 36, n. 2; *Pfr. Consp.* n. 260; *Pneum. Mon.* p. 179.

β. Smaller, spire more raised, periphery marked with a single reddish-brown line; height $7\frac{1}{2}$, greatest breadth $12\frac{1}{2}$, least br. 10 mill. (*Pfr. Ic.* t. 42, f. 13–15.)

Hab. Yemen, Arabia (Powis).

§ 2. *Axis umbilicated; right edge of peristome expanded.*

2. Otopoma auriculare. B. M.

Shell turbinate, rather thin, sculptured with crowded and unequal spiral furrows, slightly shining, white; spire shortly turbinate, rather blunt; whorls 5, convex, enlarging rapidly, last rounded;

more distinctly furrowed beneath; aperture little oblique, ovate; peristome thin, with the margins united by callus, right margin slightly expanded, emarginate above; columellar margin dilated into a broad expanded lamina, which covers half of the middle-sized umbilicus. Operculum? Height 29, greatest breadth 42, least br. 32 mill.

Cyclostoma auriculare, *Gray, in Griff. Cuv. Anim. Kingd.* t. 28, f. 5.
Cyclostoma candidum, *Sow. Thes.* n. 77, p. 117, t. 26, f. 107; *Pfr. Ic.* n. 187, p. 172, t. 25, f. 6 (from Sowerby).
Cyclophora auricularis, *Swains. Malac.* p. 336.
Otopoma auriculare, *Gray, Cat. Cycl.* p. 36, n. 4; *Pfr. Consp.* n. 261; *Pneum. Mon.* p. 180.

Locality unknown.

3. Otopoma albicans.

Shell depressed-globose, smooth, indistinctly marked with spiral and oblique striæ, rather shining, white; spire broadly conoidal, blunt; whorls 5, convex, the upper ones distinctly furrowed concentrically, the last one descending anteriorly, rather ventricose; aperture slightly oblique, ovate; peristome continuous, shortly affixed, thickened and expanded, right margin arcuately dilated; columellar margin angularly produced near the umbilicus, which is wide and somewhat funnel-shaped. Height 23, greatest breadth 35, least br. 29 mill.

Cyclostoma albicans, *Sow. Spec. Conch.* ii. *Cycl.* f. 104, 105; *Sow. in Zool. of Beech. Voy.* p. 146, t. 38, f. 30; *Sow. Thes.* n. 79, p. 118, t. 26, f. 110–112; *Pfr. Ic.* n. 83, p. 87, t. 11, f. 13, 14.
Otopoma albicans, *Gray, Cat. Cycl.* p. 36, n. 5; *Pfr. Consp.* n. 262; *Pneum. Mon.* p. 181.

Hab. The Island of Hainan, South China (Benson).

4. Otopoma naticoides. B. M.

Shell conoidally-globose, solid, thick, rose-coloured-whitish; spire conoidal, rather blunt; whorls 5½, convex, the upper ones minutely decussated, the last one closely wrinkled longitudinally, crossed by obsolete spiral folds; aperture little oblique, ovate, yelk-coloured inside; peristome thickened, slightly reflected, with the margins angularly joined by a thick whitish deposit; columellar margin dilated into a rather thick, vaulted lamina, which, in full-grown shells, nearly covers the umbilicus. Height 35, greatest breadth 41, least br. 34 mill.

Turbo foliaceus, *Chemn. Conch. Cab.* ix. P. ii. p. 59, t. 123, f. 1069, 1070? *Gmel. Syst.* p. 3602, n. 104?
Cyclostoma foliaceum, *Pfr. Ic.* n. 27, p. 36, t. 4, f. 10, 11?
Cyclostoma naticoides, *Récluz, in Rev. Zool.* 1843, p. 3; *Mag. Zool.* 1843, t. 73; *Pfr. Ic.* n. 28, p. 37, t. 6, f. 1–4.

Cyclostoma naticoide, *Sow. Thes.* n. 78, p. 117, t. 26, f. 108, 109.
Otopoma foliaceum, *Gray, Cat. Cycl.* p. 35, n. 1 (part).
Otopoma naticoides, *Pfr. Consp.* n. 263; *Pneum. Mon.* p. 181.

Hab. Socotora.

5. Otopoma Guillaini.

Shell globose-conical, solid, striate, slightly shining, whitish; spire conical, with the apex rather pointed; whorls 6, convex, sculptured, near the suture, with 6–8 raised spiral lines, last whorl ventricose; aperture little oblique, angularly roundish; peristome thickened, slightly interrupted, with the right and basal margins shortly reflected; columellar margin much dilated, vaulted, nearly covering the narrow umbilicus. Height 24, greatest breadth 26, least br. 23 mill.

Cyclostoma Guillaini, *Petit, in Journ. Conch.* 1850, i. p. 51, t. 4, f. 3; *Pfr. Ic.* n. 234, t. 34, f. 7, 8.
Otopoma Guillaini, *Pfr. Consp.* n. 264; *Pneum. Mon.* p. 182.

Hab. Mogadoxa, coast of Africa.

6. Otopoma unifasciatum.

Shell subglobose, with an acuminated but decollated spire, consisting of four rounded, smooth volutions, with faint spiral striæ; volutions whitish, the last with a single fuscous band near the base; suture distinct; aperture circular, orange-coloured within, peritreme white, reflected, sinuated above, thickened on the side of the umbilicus, which is small and spirally grooved. Height 20, breadth 22 mill.

Cyclostoma unifasciatum, *Sow. in Cat. Tank. App.* p. viii. n. 1016; *Thes.* n. 81, p. 119, t. 26, f. 105, 106; *Pfr. Ic.* n. 188, p. 173, t. 25, f. 4, 5 (from *Sow.*).
Otopoma unifasciatum, *Pfr. Consp.* n. 265; *Pneum. Mon.* p. 183.

Hab. Madagascar (Sowerby).

Compare Otopoma Listeri.

§ 3. *Axis umbilicated; right edges of peristome straight.*

7. Otopoma? Philippianum.

Shell globose-turbinate, thin, faintly striate, decussated above by minute spiral lines, fulvous-whitish, painted, on the upper side, with 3–4 narrow reddish-brown bands; spire turbinate, with the apex blackish; whorls 5–5½, rounded, the last one girdled, below the middle, with a single broader band, smooth and uniformly white beneath; aperture little oblique, rather angularly roundish, of the same colour within; peristome slightly interrupted, with the margins joined by thin callus, right margin straight,

columellar margin dilated, freely reflected, half concealing the narrow pervious umbilicus. Operculum ? Height 22, greatest breadth 26, least br. 21 mill.

Turbo ligatus var., *Chemn. Conch.* ix. P. ii. p. 60, t. 123, f. 1073, 1074 (ed. alt. t. 4, f. 14, 15).
Cyclostoma ligatum, *Sow. Thes.* n. 21, p. 98, t. 23, f. 24. (Not *Müller.*)
Cyclostoma Philippianum, *Pfr. Ic.* n. 356, t. 44, f. 23, 24.
Otopoma Philippianum, *Pfr. Consp.* n. 266, p. 61; *Pneum. Mon.* p. 183.

Locality unknown.

8. Otopoma clathratulum. B. M.

Shell conoidally-globose, rather thick, regularly trellised above by crowded longitudinal and spiral raised lines, brownish-flesh-coloured, marked often with small brown spiral lines above; spire conoidal, rather blunt; whorls 5, convex, the upper ones blackish-bordered above the suture, the last one smooth below the middle; umbilicus narrow, pervious; aperture obliquely ovate, angulated above, yelk-coloured within; peristome straight, rather thickened, with the margins nearly contiguous, angularly joined by a continued callus; columellar margin scarcely reflexed. Height 18, greatest breadth 22, least br. 18 mill.

Cyclostoma clathratula, *Récluz, in Rev. Zool.* 1843, p. 3; *Mag. Zool.* 1843, t. 74.
Cyclostoma clathratulum, *Sow. in Proc. Z. S.* 1843, p. 30; *Thes.* n. 17, p. 97, t. 23, f. 15, 16; *Pfr. Ic.* n. 29, p. 38, t. 5, f. 5–7.
Otopoma foliaceum jun., *Gray, Cat. Cycl.* p. 35.
Otopoma clathratulum, *Pfr. Consp.* n. 267; *Pneum. Mon.* p. 184.

Hab. Yemen, Arabia (Sowerby), Socotora (Récluz).

9. Otopoma ? vitellinum.

Shell globose-conical, solid, coarsely decussated by crowded striæ of growth and more crowded spiral ridges, yellowish-reddish, with irregular paler stripes; spire raised, conical, with the apex rather blunt, blackish; whorls 5, convex, the last rounded, smooth below the middle, spirally grooved in the narrow pervious umbilicus; aperture scarcely oblique, ovate-roundish; peristome simple, with the margins approximate, joined by callus; right margin straight, rather sinuate; left margin dilated and expanded in the middle. Height 17, greatest breadth 19, least br. 17 mill.

Cyclostoma vitellinum, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 353, t. 43, f. 35, 36.
Otopoma ? vitellinum, *Pfr. Consp.* n. 268, p. 61; *Pneum. Mon.* p. 184.

Hab. Madagascar.

10. Otopoma Listeri. B. M.

Shell globose-conical, thick, smooth, shining, flesh-coloured; spire conical, with the spire rather pointed, horn-coloured; whorls 5, convex, the last one angulated indistinctly, sometimes girdled with a single reddish-brown line below the middle, deeply spirally grooved beneath; aperture somewhat oblique, rather ovate, fulvous within; peristome simple, straight, with distant margins, angularly joined by thin callus, columellar margin dilated and reflexed, sometimes altogether closing the very narrow umbilicus. Height 13, greatest breadth 15½, least br. 13½ mill.

Lister, *Hist.* t. 44, f. 42.
Cyclostoma Listeri, *Gray, in Ann. of Philos.* 1821; *Sow. in Proc. Z. S.* 1843, p. 31; *Thes.* n. 20, p. 98, t. 23, f. 22, 23; *Pfr. Ic.* n. 95, p. 98, t. 12, f. 30, 31.
Cyclostoma fimbriata, *Quoy & Gaim. Voy. Astrol.* p. 188, t. 12, f. 31–35; *Desh. Recueil*, t. 29, f. 12; *Pfr. Ic.* n. 198, n. 179, t. 30, f. 34, 35 (from Quoy); *Chenu, Ill.* t. 1, f. 12.
Cyclostoma Philippi, *Grateloup, Act. Soc. Bord.* xi. p. 446, t. 3, f. 21 ?
Otopoma Listeri, *Gray, Cat. Cycl.* p. 36, n. 3; *Pfr. Consp.* n. 269; *Pneum. Mon.* p. 185.

Hab. The island of Mauritius.

11. Otopoma hæmastomum.

Shell conically-globular, solid, grayish-flesh-coloured; spire conical, with the apex rather pointed, fulvous; whorls 5½, convex, crowdedly spirally furrowed, the three or four furrows near the suture being deeper than the rest, last whorl ventricose, angulated indistinctly, marked with one reddish line below the middle, more distantly and deeply grooved round the umbilicus, which is middle-sized and pervious; aperture roundish ovate, blood-red within; peristome simple, straight, with the margins angularly joined above, left margin somewhat dilated and thickened near the umbilicus. Height 14, greatest breadth 16, least br. 14 mill.

Cyclostoma hæmastoma, *Anton. Verzeichn.* p. 54, n. 1954.
Cyclostoma hæmastomum, *Pfr. Ic.* n. 16, p. 24, t. 3, f. 3, 4.
Otopoma hæmastomum, *Gray, Cat. Cycl.* p. 36, n. 6; *Pfr. Consp.* n. 270; *Pneum. Mon.* p. 186.

Hab. Isle de France.

12. Otopoma ? politum.

Shell perforate, conically-globose, rather thick, polished, chestnut-coloured, closely dropped with small fulvous or blueish-white speckles; spire conoidal, rather blunt; whorls 4½, moderately convex, the last one pale anteriorly; aperture rather circular, pale within; peristome straight, blunt, with the margins angu-

larly joined above, columellar margin thickened, not concealing the umbilicus, which is small and not pervious. Operculum? Height 14, greatest breadth 18, least br. 15 mill.

Cyclostoma politum, *Sow. Thes.* n. 18, p. 97, t. 23, f. 17; *Pfr. Ic.* n. 167, p. 155, t. 21, f. 13, 14.
Otopoma politum, *Gray, Cat. Cycl.* p. 37, n. 7; *Pfr. Consp.* n. 271; *Pneum. Mon.* p. 186.

Locality unknown.

13. Otopoma? spurcum.

Shell orbiculate-turbinate, obconical, dirty white, widely umbilicate, striate longitudinally; spire short, pointed; whorls convex; aperture open, rounded; labrum simple, sharp. Height 15, breadth 20 mill.

Cyclostoma spurca, *Grateloup, Act. Soc. Linn. Bord.* xi. p. 444, t. 3, f. 18.
Otopoma spurcum, *Gray, Cat. Cycl.* p. 37, n. 9; *Pfr. Consp.* n. 272; *Pneum. Mon.* p. 187.

Hab. Bombay?

14. Otopoma pygmæum. B. M.

Shell perforate, globose-conical, rather thin, sculptured with moderately crowded ridges, brownish-whitish; spire conical, rather pointed; whorls 5, convex, last rounded; aperture oblique, angularly ovate; peristome simple, slightly interrupted, with the right margin straight, columellar margin expanded and dilated into an indistinct angle in the middle. Height 4, greatest breadth $4\frac{2}{3}$, least br. 4 mill.

Cyclostoma pygmæum, *Sow. Thes.* n. 39, p. 104, t. 30, f. 253.
Otopoma pygmæum, *Gray, Cat. Cycl.* p. 37, n. 8; *Pfr. Consp.* n. 273; *Pneum. Mon.* p. 187.

Hab. New Ireland (Hinds).

§ 4. *Axis umbilicated; right edge of peristome expanded; deeply sinuous.*

15. Otopoma multilineatum. B. M.

Shell globose-conoidal, solid, wrinkled and striate longitudinally, shining, fulvous; spire conical, with the apex rather blunt; whorls $4\frac{1}{2}$–5, convex, the last ventricose, marbled with white and fulvous, girdled with chestnut-coloured lines; aperture somewhat oblique, roundish, rather angular, of the same colour within; peristome slightly expanded, thickened, with the margins distant, right margin angularly sinuous, deeply indented, colu-

mellar margin vaulted and reflected, almost closing the perforated axis. Height 14, greatest breadth 17, least br. 13½ mill.

Cyclostoma multilineata, *Jay, Catal.* 1839, p. 123, t. 7, f. 12, 13.
Cyclostoma flexilabrum, *Sow. Thes.* n. 112, p. 130, t. 31, f. 258, 259; *Pfr. Ic.* n. 87, p. 91, t. 11, f. 7, 8; *Jay, Catal.* 1850, p. 256, n. 5869.
Cyclostoma flavilabre, *Petit, in Journ. Conch.* 1850, i. p. 42.
Trophidophora flexilabrum, *Gray, Cat. Cycl.* p. 41, n. 15.
Otopoma multilineatum, *Pfr. Consp.* n. 274; *Pneum. Mon.* p. 187.

Hab. Madagascar (Powis).

XXI. CYCLOSTOMUS.

Operculum rather ovate, shelly, flat; whorls 4–5, gradually increasing, with simple margins; nucleus excentric. Shell depressed, globose-turbinate or ovate-turreted. Aperture ovate. Peristome simple, straight or expanded, often double.

Cyclostomus, *Montfort, Conch. Syst.* ii. p. 286; *Gray, in Proc. Z. S.* 1847, p. 181, n. 514; *Pfr. in Z.* f. *M.* 1851, p. 159; *Consp.* p. 31; *Pneum. Mon.* p. 188.
Cyclostomus et Tropidophora, *Gray, Cat. Cycl.* p. 42, 37.
Tropidophora, *Troschel, in Z.* f. *M.* 1847, p. 44.
Tropidophora et Cyclostoma (part), *Pfr. in Z.* f. *M.* 1847, p. 106, 107.
Cyclostoma sp., *Lam. et Auctt.*

A. Keeled.
  1. Depressed . . . . . § 1. N. 1–8.
  2. Turbinate-conical.
    a. With two or more keels . . . § 2. „ 9–26.
    b. With a single keel . . . . § 3. „ 27–28.

B. Not keeled.
  1. Depressed . . . . . § 4. „ 29–30.
  2. Globose-turbinate.
    a. Peristome reflected.
      α. Broad . . . . . § 5. „ 31–37.
      β. Narrow . . . . . § 6. „ 38–54.
    b. Peristome straight . . . . § 7. „ 55–59.
  3. Ovate-turreted.
    a. Peristome straight . . . . § 8. „ 60–68.
    b. Peristome expanded, double.
      α. Smooth . . . . . § 9. „ 69–71.
      β. Folded longitudinally . . § 10. „ 72–80.
      γ. Decussated . . . . § 11. „ 81–85.

§ 1. *Shell keeled, depressed.*

1. Cyclostomus Cuvierianus. B. M.

Shell depressed, decussated by close-set longitudinal and more crowded spiral lines, grayish-fulvous; spire little raised; whorls 5–6, the upper ones convex, the following flattened, with one lamellar keel, the last one slightly convex above; furnished at its periphery with two distant sharp lamellar keels and numerous sharply-raised spiral ridges round the wide and open umbilicus; aperture oblique, rather circular, fulvous within; peristome white, broadly expanded, with the margins joined by rather thick callus, right margin showing two channels, columellar margin dilated and expanded above. Height 32, greatest breadth 64, least br. 54 mill.

Cyclostoma Cuvieriana, *Petit, in Revue Zool.* 1841, p. 184; *Mag. Zool.* 1842, t. 55.
Cyclostoma Cuvierianum, *Reeve, Conch. Syst.* t. 184, f. 14, t. 185, f. 24; *Sow. Thes.* n. 72, p. 115, t. 30, f. 218, 219; *Philippi, Abbild.* i. 5, p. 103, t. 1, f. 1; *Pfr. Ic.* n. 1, p. 9, t. 1, f. 1–4.
Tropidophora Cuvieriana, *Pfr. in Z.* f. *M.* 1847, p. 106, n. 1; *Gray, Cat. Cycl.* p. 37, n. 1.
Cyclostomus Cuvierianus, *Pfr. Consp.* n. 275; *Pneum. Mon.* p. 189.

β. Smaller, with the columellar margin of the peristome much dilated over the umbilicus; height 22, greatest breadth 37, least br. 32 mill.

Hab. Madagascar and Nosibé.

2. Cyclostomus formosus.

Shell depressed trochiform, rather solid, furnished with three sharp keels, with the interstices decussated by raised spiral and more crowded transverse lines, fulvous-brownish, articulated with white on the keels and near the suture; spire stair-like, rather acuminate; whorls 5, flattened, the upper with one keel, the last one large, crowdedly spirally grooved below the third keel; umbilicus funnel-shaped; aperture diagonal, rather circular; peristome simple, with the margins joined by a thin emarginate callus, right margin expanded, showing two channels, columellar margin narrowly reflected. Height 23, greatest breadth 42, least br. 34 mill.

Cyclostoma formosum, *Sow. in Proc. Z. S.* 1849, p. 15; *Moll.* t. 2, f. 8, 9; *Pfr. Ic.* n. 221, t. 32, f. 1, 2.
Tropidophora carinata var., *Gray, Cat. Cycl.* p. 38.
Cyclostomus formosus, *Pfr. Consp.* n. 276; *Pneum. Mon.* p. 190.

Hab. Madagascar.

3. Cyclostomus cariniferus. B. M.

Shell depressed, rather discoidal, trellised by distinct striæ of growth and very numerous raised keels and crowded spiral lines, fulvous-brownish, with a single darker band below the periphery; spire scarcely raised, slightly mucronate; whorls 5, moderately convex, enlarging rapidly, depressed along the suture; umbilicus wide; aperture little oblique, nearly circular; peristome fulvous, slightly thickened, shortly expanded, with the margins joined by a callus, which is produced upwards, columellar margin dilated, rather reflected. Height 17, greatest breadth 40, least br. 32 mill.

Cyclostoma cariniferum, *Sow. Spec. Conch.* f. 197, 198; *Reeve, Conch. Syst.* t. 185, f. 23; *Sow. Thes.* n. 69, p. 114, t. 25, f. 98; *Pfr. Ic.* n. 152, p. 144, t. 19, f. 13–15.

Cyclophorus ? cariniferus, *Pfr. in Z.* f. *M.* 1847, p. 108, n. 25; *Gray, Cat. Cycl.* p. 21, n. 25.

Cyclostomus cariniferus, *Pfr. Consp.* n. 277; *Pneum. Mon.* p. 191.

β. Smaller, with very numerous fainter keels, with the peristome reddish-orange-coloured; height 16, greatest breadth 36, least br. 28 mill.

Cyclostoma spectabile, *Petit, in Journ. Conch.* 1850, i. p. 49, t. 3, f. 2.

Hab. Madagascar, the variety from Nosse Faly, near Nosse Be (Guillair).

4. Cyclostomus articulatus.

Shell orbiculate-conoidal, solid, pale flesh-coloured, furnished with numerous keels, two or three of which are stronger and articulated with brown; spire broadly conoidal, with the apex rather blunt; whorls 5, moderately convex, rather angulated, increasing rapidly, the last one rather flattened below the peripherical keel, painted with a single brown band, grooved crowdedly and deeply, separated by a broader keel from the umbilicus, which is middle-sized, funnel-shaped, coarsely furrowed; aperture rather oblique, nearly circular, fulvous within; peristome slightly thickened, straight, with the margins joined by a short lunar-shaped indented callus, right margin sinuate above. Height 18, greatest breadth 28, least br. 24 mill.

Cyclostoma articulata, *Gray, in Griff. Anim. Kingd.* t. 28, f. 1.

Cyclostoma filosum, *Sow. Spec. Conch.* f. 16, 17; *Zool. of Beech. Voy.* p. 146, t. 38, f. 31; *Reeve, Conch. Syst.* t. 184, f. 16; *Sow. Thes.* n. 16, p. 96, t. 23, f. 14; *Pfr. Ic.* n. 144, p. 137, t. 18, f. 12, 13.

Cyclostoma Terveriana, *Grateloup, in Act. Soc. Linn. Bord.* xi. p. 439, t. 3, f. 8.

Cyclophora articulata, *Swains. Malac.* p. 336.

Tropidophora filosa et Terveriana, *Pfr. in Z.* f. *M.* 1847, p. 106.

Tropidophora articulata et Terveriana, *Gray, Cat. Cycl.* p. 38, 42.
Cyclostomus articulatus, *Pfr. Consp.* n. 278; *Pneum. Mon.* p. 191.

Hab. East India (Sowerby), Madagascar (Grateloup), Island of Rodriguez, near Mauritius (Benson).

5. Cyclostomus Deshayesianus.

Shell depressed, solid, sculptured above with numerous, alternately sharply raised keels, with the interstices very minutely decussated, opaque, reddish-orange-coloured; spire shortly turbinate, with the apex rather nipple-shaped; whorls 5, convex, enlarging rapidly, the last one descending, with a sharper compressed peripherical keel, convex beneath and closely spirally striate; umbilicus middle-sized; aperture very oblique, rather circular; peristome indistinctly double; inner edge callous, blunt, white; outer edge thickened, expanded angularly, produced forward and dilated above, affixed. Height 11, greatest breadth 22, least br. 19 mill.

Cyclostoma Deshayesianum, *Petit, in Rev. Zool.* 1843, p. 3; *Mag. Zool.* 1844, t. 98; *Pfr. Ic.* n. 192, p. 175, t. 25, f. 8–10; *Sow. Thes. Suppl.* n. 191, p. 164*, t. 31 *B*, f. 326, 327.
Cyclostoma gratum, *Feruss. Mus.*
Tropidophora Deshayesiana, *Pfr. in Z.* f. *M.* 1847, p. 106, n. 6.
Tropidophora Cuvieriana var., *Gray, Cat. Cycl.* p. 38.
Cyclostomus Deshayesianus, *Pfr. Consp.* n. 279; *Pneum. Mon.* p. 192.

Hab. The Northern part of Madagascar.

6. Cyclostomus Abeillei.

Shell orbiculate, rather trochiform, umbilicate, five-keeled, transversely furrowed, whitish, with dark bands or yellowish spots; umbilicus deep; spire short, pointed; whorls 5; aperture rather circular; lips sharp, slightly reflexed. Height 16–17, breadth 20 mill.

Cyclostoma Abeillei, *Grateloup, in Act. Soc. Lin. Bord.* xi. p. 437, t. 3, f. 6.
Tropidophora Abeillei, *Pfr. in Z.* f. *M.* 1847, p. 106, n. 3; *Gray, Cat. Cycl.* p. 42, n. 19.
Cyclostomus Abeillei, *Pfr. Consp.* n. 280; *Pneum. Mon.* p. 193.

Hab. Madagascar.

7. Cyclostomus modestus.

Shell depressed, rather solid, slightly striate, with numerous spiral ridges and three sharper keels, brownish-white; spire flat; whorls 4, depressed, united by a channelled suture, the last convex beneath; umbilicus wide; aperture oblique, angularly ovate; peristome white, with the margins approximate, joined

by thin callus, right margin sinuate above, vaulted and expanded, angulated by the ends of the keels, columellar margin narrow, scarcely reflected. Height 9, greatest breadth 24, least br. 19 mill.

Cyclostoma modestum, *Petit. in Journ. Conch.* 1850, i. p. 50, t. 4, f. 2; *Pfr. Ic.* n. 333, t. 42, f. 16–18.
Cyclostomus modestus, *Pfr. Consp.* n. 281; *Pneum. Mon.* p. 193.

Hab. The Island of Abd-el-Goury.

8. Cyclostomus liratus.

Shell nearly discoidal, rather solid, radiatingly striate, furnished above and beneath with crowded sharp spiral ridges, not shining, grayish-flesh-coloured; spire scarcely raised, with the apex nipple-shaped; suture deep; whorls 4, scarcely convex, the last one depressed along the suture, bearing on the periphery 5–6 more distant stronger keels, descending anteriorly; umbilicus broad and open; aperture very oblique, oblong-circular; peristome double; inner edge continuous, faintly prominent; outer edge dilated, expanded and inflexed, with the columellar margin extremely narrow. Height 7–8, greatest breadth 18, least br. 14½ mill.

Cyclostoma liratum, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 340, t. 42, f. 9, 10.
Cyclostomus liratus, *Pfr. Consp.* n. 282, p. 61; *Pneum. Mon.* p. 194.

Locality unknown.

§ 2. *Shell rather more keeled; turbinate-conical.*

9. Cyclostomus campanulatus.

Shell turbinate, solid, very crowdedly and slightly striate, yellowish, marbled irregularly with gray and dark flesh-colour; spire conical, raised, with the apex rather blunt; whorls 6, the upper ones convex, the following angulated, enlarging rapidly, the last one girdled with two sharply-raised and with several more obsolete keels, crowdedly and deeply grooved beneath; umbilicus narrow, rather funnel-shaped, scarcely pervious; aperture ovate-roundish, rather angulated above, blackish-chestnut-coloured and extremely polished within; peristome continuous, dilated, bell-shaped, flesh-coloured, lunarly emarginate on the penultimate whorl, with the columellar margin sinuate. Height 34, greatest breadth 45, least br. 35 mill.

Cyclostoma campanulatum, *Pfr. in Z. f. M.* 1847, p. 57; *Ic.* n. 141, p. 135, t. 18, f. 4–6.
Cyclostoma unicarinatum, *Sow. Thes.* t. 26, f. 119 (not f. 120).
Cyclostoma tricarinatum, *Pot. et Mich. Gal. Douai*, i. p. 242, t. 24, f. 22, 23?

Tropidophora campanulata, *Pfr. in Z.* f. *M.* 1847, p. 106, n. 8.
Tropidophora tricarinata var., *Gray, Cat. Cycl.* p. 39.
Cyclostomus campanulatus, *Pfr. Consp.* n. 283; *Pneum. Mon.* p. 194.

Locality unknown.

10. Cyclostomus bicarinatus. B. M.

Shell globose-conical, rather thin, closely but faintly spirally grooved, bicarinated, brownish-gray; spire pyramidal, with the apex usually truncated; whorls 6, angulated, the last one girdled with two pale, acutely-raised keels, deeply spirally furrowed beneath; aperture rather vertical, nearly circular, shining blackish-blood-red within; peristome simple, expanded, purplish-blood-red, with the margins nearly continuous, columellar margin dilated above into a tongue-shaped, vaulted lamina, which nearly altogether closes the umbilicus. Length 35, breadth of the penultimate whorl 23 mill.

Cyclostoma bicarinatum, *Sow. Thes.* n. 85, p. 120, t. 26, f. 121; *Pfr. Ic.* n. 147, p. 139, t. 19, f. 1–3; *Dêsh. Traité élém. Conch.* t. 82, f. 1, 2.
Tropidophora bicarinata, *Pfr. in Z.* f. *M.* 1847, p. 106, n. 9.
Tropidophora tricarinata var., *Gray, Cat. Cycl.* p. 39.
Cyclostomus bicarinatus, *Pfr. Consp.* n. 284; *Pneum. Mon.* p. 195.

β. Smaller, with the umbilicus rather open; length 24, breadth 17 mill.

Hab. Madagascar.

11. Cyclostomus pulchellus. B. M.

Shell perforate, globose-turbinate, thin, minutely decussated by very crowded longitudinal and spiral striæ, fulvid-flesh-coloured, with numerous interrupted bands of chestnut-colour; spire conical, pointed; whorls 5, convex, enlarging rapidly, the last two furnished with two to three rather sharp keels, the last one forming a funnel-shaped, narrow umbilicus, which is deeply and closely spirally grooved; aperture rather perpendicular, nearly circular; peristome sharp, with the margins angularly joined above, right margin broadly expanded, blood-red, left margin narrow, scolloped. Height 23, breadth 29 mill.

Cyclostoma pulchellum, *Sow. Thes.* n. 109, p. 129; *Pfr. Ic.* n. 142, p. 135.
Tropidophora pulchella, *Gray, Cat. Cycl.* p. 40, n. 8.
Cyclostomus pulchellus, *Pfr. Consp.* n. 285; *Pneum. Mon.* p. 195.

a. Adult, perfect:
Cyclostoma Hanleyi, *Pfr.* in *Z.* f. *M.* 1847, p. 58; *Ic.* n. 143, p. 136, t. 18, f. 9–11.
Tropidophora Hanleyi, *Pfr. in Z.* f. *M.* 1847, p. 106, n. 10.

β. Younger shell:

Cyclostoma pulchellum, *Sow. Thes.* t. 31, f. 263, 264; *Pfr. Ic.* t. 18, f. 7, 8.

Tropidophora pulchella, *Pfr. in Z.* f. *M.* 1847, p. 106, n. 11.

Locality unknown.

12. Cyclostomus zonulatus.

Shell globose-pyramidal, rather thin, sculptured with crowded longitudinal striæ and with numerous sharp keels, ash-gray; spire conical, rather pointed; whorls 5, convex, the last one with a single sharp peripherical keel, with spiral ridges and three rather raised keels above, closely spirally grooved and painted with several brownish-horn-coloured bands beneath; aperture nearly perpendicular, rather circular; peristome white, shortly interrupted, with the right margin dilated, rectangularly expanded, scolloped, left margin narrow, reflexed above into a vaulted lamina, which nearly closes the narrow umbilicus. Height 19, greatest breadth 21, least br. 16 mill.

Cyclostoma zonulatum, *Ferussac, Mus.; Sow. Thes. Suppl.* n. 180, p. 159*, t. 31, *A.* f. 296, 297; *Pfr. Ic.* n. 238, t. 34, f. 17, 18.

Cyclostomus zonulatus, *Pfr. Consp.* n. 286; *Pneum. Mon.* p. 196.

Locality unknown.

13. Cyclostomus tricarinatus. B. M.

Shell top-shaped, acuminate, pale with indistinct yellow transverse stripes and spiral striæ; whorls 5, marked with very numerous convex spiral ridges and three stronger raised sharp keels; aperture dilated, nearly circular; peristome dilated, white, with sharp margins, left margin produced, not altogether covering the perforated axis. Breadth 11 lin.

Helix tricarinata, *Müller, Hist. Verm.* ii. p. 84, n. 282; *Chemn. Conch. Cab.* ix. P. II. p. 85, t. 126, f. 1103, 1104; *Gmel. Syst.* p. 3621, n. 34.

Turbo carinatus, *Wood, Ind.* t. 32, f. 125.

Cyclostoma tricarinata, *Lam. Hist.* vi. p. 144, n. 6. *Ed. Dêsh.* viii. p. 355.

Cyclostoma tricarinatum, *Pfr. Ic.* t. 4, f. 16, 17 (excluding the description, and t. 3, f. 8).

Tropidophora tricarinata, *Pfr. in Z.* f. *M.* 1847, p. 106, n. 12; *Gray, Cat. Cycl.* p. 39, n. 5 (excluding the varieties).

Cyclostomus tricarinatus, *Pfr. Consp.* n. 287; *Pneum. Mon.* p. 197.

Hab. Madagascar.

14. Cyclostomus carinatus. B. M.

Shell globose-conical, coarsely sculptured on the whole surface, with rather crowded spiral ridges, pale fulvous; spire conoidal,

usually truncate; whorls 4–6, convex, girdled with two or three strong keels, last whorl convex beneath, furnished with a sharp keel surrounding the umbilicus, which is funnel-shaped and strongly furrowed spirally; aperture roundish, angular above; peristome expanded, slightly thickened, with the margins joined, angulated by the keels. Height 21, greatest breadth 28, least br. 23 mill.

Buconium umbilicatum, *Lister*, *Hist.* t. 28, f. 26; *Schroet. Einl.* ii. p. 181, n. 10.

Turbo carinatus, *Born*, *Test.* p. 353, t. 13, f. 3, 4; *Schroet. Einl.* ii. p. 103, n. 118; *Gmel. Syst.* p. 3601, n. 57; *Dillw. Cat.* ii. p. 866, n. 123.

Cyclostoma carinata, *Lam. Hist.* vi. p. 143, n. 3; *Ed. Désh.* viii. p. 354?; *Désh. in Encycl. Méth.* ii. p. 40, n. 3?

Cyclostoma tricarinatum, *Sow. Thes.* n. 86, p. 120, t. 26, f. 122; *Pfr. Ic.* n. 17, p. 25, t. 3, f. 8 (not t. 4, f. 16, 17).

Tropidophora carinata, *Pfr. in Z.* f. *M.* 1847, p. 106, n. 5; *Gray*, *Cat. Cycl.* p. 38, n. 3.

Cyclostomus carinatus, *Pfr. Consp.* n. 288; *Pneum. Mon.* p. 198.

Locality unknown.

15. Cyclostomus unicolor.

Shell globose-conical, solid, faintly striate longitudinally, crowdedly furrowed spirally, opaque, whitish; spire conical, with the apex fulvous, rather blunt; whorls 5, moderately convex, the last one sharply keeled above and on the middle, with a third very strong keel surrounding the umbilicus, which is narrow, funnel-shaped, deeply spirally grooved within; aperture rather oblique, angularly rounded; peristome simple, with the margins joined by a lunar-shaped emarginated callus; right margin slightly expanded, left margin angularly thickened in the middle. Height 20, greatest breadth 28, least br. 22 mill.

Cyclostoma unicolor, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 289, t. 39, f. 5, 6.

Cyclostomus unicolor, *Pfr. Consp.* n. 289, p. 62; *Pneum. Mon.* p. 199.

β. Smaller; fulvous-straw-yellow, closely striate longitudinally. Height 16, greatest breadth 20, least br. 17 mill. (*Pfr. Ic.* t. 39, f. 7.)

Locality unknown.

16. Cyclostomus deliciosus.

Shell globose-turbinate, rather thin, striate, furnished on the middle with three sharp and several smaller keels, cinnamon-coloured; spire turbinate, with the apex rather pointed; whorls

5½, angulated, convex, the last one moderately convex above, and marked with several raised lines, more convex beneath, with rather crowded spiral ridges surrounding the umbilicus, which is middle-sized, funnel-shaped; aperture oblique, ovate; peristome simple, with the margins approximate, joined by thin callus; right margin expanded, columellar margin reflexed. Height 17, greatest breadth 23, least br. 18 mill.

Cyclostoma deliciosum, *Ferussac, Mus.; Sow. Thes. Suppl.* n. 186, p. 162*, t. 31, *B.* f. 314, 315; *Pfr. Ic.* n. 239, t. 34, f. 19, 20.
Cyclostomus deliciosus, *Pfr. Consp.* n. 290; *Pneum. Mon.* p. 199.

Hab. Madagascar.

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17. Cyclostomus Michaudi. B. M.

Shell globose-conical, solid, slightly striate, girdled with 7–8 more or less prominent, rather sharp keels, greyish or pale violaceous; spire conical, often truncate; whorls 6, convex, the last one separated by a very strong keel from the umbilicus, which is funnel-shaped, scarcely pervious, deeply spirally grooved within; aperture rather circular; peristome whitish, shortly expanded, crenulated, with the margins joined by a white callus, columellar margin dilated, thickened, slightly reflexed, concealing the perforation, indistinctly channelled by the basal keel. Length 30, breadth 21 mill.

Cyclostoma Michaudi, *Grateloup, in Act. Soc. Linn. Bord.* xi. p. 440, t. 3, f. 11; *Pfr. Ic.* n. 145, p. 138, t. 18, f. 14–16.
Cyclostoma carinatum, *Sow. Thes.* n. 88, p. 119, t. 26, f. 117 (not f. 118). Not *Born.*
Tropidophora Michaudi, *Pfr. in Z.* f. *M.* 1847, p. 106, n. 13.
Otopoma Michaudi, *Gray, Cat. Cycl.* p. 37, n. 10.
Cyclostomus Michaudi, *Pfr. Consp.* n. 291; *Pneum. Mon.* p. 200.

Hab. Madagascar (Grateloup).

18. Cyclostomus Barclayanus.

Shell globose-conical, solid, slightly striate and furnished with numerous sharply-raised keels, violaceous-brownish, varied with darker and paler streaks; spire conical, with the apex blunt, often truncate; whorls 5, little convex, the last one bearing three stronger, more prominent keels, the largest of which is on the periphery, the second on the base, the third on the upper side; aperture nearly perpendicular, rather circular, greyish-blood-red within; peristome blood-red, slightly thickened, expanded, lunarly emarginated on the penultimate whorl, with the right margin scolloped by the keels, columellar margin vaulted and reflected, almost covering the perforated axis. Length 29, breadth 23 mill.

Cyclostoma Barclayanum, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 222, t. 32, f. 3, 4.
Cyclostoma carinatum, var., *Sow. Thes.* t. 26, f. 118.
Cyclostomus Barclayanus, *Pfr. Consp.* n. 292, p. 62; *Pneum. Mon.* p. 200.

Hab. Isle de France (Sir David Barclay).

19. Cyclostomus calcareus. B. M.

Shell globose-conical, solid, furnished with spiral ridges, which are more prominent alternately, opaque, white; spire conical, with the apex acuminate, slightly truncate; whorls $5\frac{1}{2}$, convex, enlarging rapidly, the last one ventricose, equally furrowed round the middle-sized pervious umbilicus; aperture somewhat oblique, rather circular; peristome continuous, expanded, slightly emarginated on the penultimate whorl. Height 25, greatest breadth 33, least br. 27 mill.

Cyclostoma sulcata, *Lam. Hist.* vi. p. 144, n. 4; *Ed. Dêsh.* viii. p. 354; *Deless. Recueil*, t. 29, f. 9 (not *Draparnaud*); *Chenu, Ill. Conch.* t. 1, f. 9.
Cyclostoma calcareum, *Sow. Thes.* n. 80, p. 118, t. 26, f. 113; *Pfr. Ic.* n. 84, p. 88, t. 11, f. 11, 12.
Tropidophora calcarea, *Gray, Cat. Cycl.* p. 40, n. 10.
Cyclostomus calcareus, *Pfr. Consp.* n. 293; *Pneum. Mon.* p. 201.

Locality unknown.

20. Cyclostomus rugosus.

Shell globose-turbinate, solid, very faintly and crowdedly furrowed spirally, slightly shining, rose-flesh-coloured; spire conoidal, with the apex fulvous, rather blunt; whorls 5, convex, the last furnished above with about six raised keels, and with a single chestnut-coloured band below the periphery; umbilicus funnel-shaped, deeply and closely grooved within; aperture rather perpendicular, ovate-roundish, fulvous inside; peristome whitish, slightly thickened and expanded, with the margins joined by a lunar-shaped indented callus, columellar margin angularly dilated, expanded. Height 24, greatest breadth 28, least br. 23 mill.

Cyclostoma rugosa, *Lam. Hist.* vi. p. 145, n. 8; *Ed. Dêsh.* viii. p. 356; *Delessert, Recueil*, t. 29, f. 7; *Pfr. Ic.* t. 21, f. 15, 16 (from *Deless.*); *Chenu, Ill. Conch.* t. 1, f. 7.
Cyclostoma cinctum, *Sow. Thes.* n. 107, p. 129, t. 29, f. 199; *Pfr. Ic.* n. 149, p. 141, t. 19, f. 6, 7.
Tropidophora rugosa, *Gray, Cat. Cycl.* p. 41, n. 14.
Cyclostomus rugosus, *Pfr. Consp.* n. 294; *Pneum. Mon.* p. 202.

Hab. East India (Sowerby).

21. Cyclostomus Creplini.

Shell globose-conical, solid, very faintly striate, silk-shining, straw-yellow or pale fuscous, spotted and striped with chestnut colour, furnished with numerous keels, which are rather equal, inequidistant, sharp (about 12 on the last whorl), rather blunt and more crowded in the narrow umbilicus; spire conical, blunt; whorls 5, turgid, angulated; aperture slightly oblique, roundish, slightly angulated; peristome shortly interrupted, indistinctly double, thickened, flesh-coloured whitish, expanded and reflected, angularly dilated above; columellar margin vaulted and dilated. Height 15½, greatest breadth 19, least br. 15½ mill.

Cyclostomi Creplini, *Dunker, in Z.* f. *M.* 1848, p. 177; *Pfr. Ic.* n. 278, t. 38, f. 13–15.
Cyclostomus Creplini, *Pfr. Consp.* n. 295; *Pneum. Mon.* p. 202.

Hab. Zanzibar, East Africa (Rodatz).

22. Cyclostomus pulcher. B. M.

Shell perforated, turbinate, rather solid, roughly sculptured with longitudinal raised lines and numerous unequal keels, blackish-fuscous, with pale or reddish, with dark streaks; whorls 5, convex, with a single indistinct pale band, equally keeled beneath; aperture rather perpendicular, ovate-roundish, equally coloured within; peristome simple, with the margins joined into a slight angle; columellar margin somewhat reflexed, not concealing the narrow umbilicus. Height 14, greatest breadth 16½, least br. 14½ mill.

Cyclostoma pulchra, *Gray, in Griff. An. Kingd.* t. 28, f. 3.
Cyclostoma ortix, *Valenc. MSS.; Eydoux in Guér. Mag.* 1838, t. 117, f. 2.
Cyclostoma ortyx, *Sow. Thes.* n. 24, p. 99, t. 23, f. 27, 28; *Pfr. Ic.* n. 137, p. 131, t. 16, f. 13, 14.
Cyclostoma multicarinata, *Jay, Catal.* 1839, p. 122, t. 7, f. 7, 8.
Cyclostoma Arthurii, *Grateloup, in Act. Soc. Linn. Bord.* xi. p. 438, t. 3, f. 7–12.
Cyclophora pulchra, 2 *Swains. Malac.* p. 336 (from the figure in *Griff.*).
Tropidophora ortyx, *Pfr. in Z.* f. *M.* 1847, p. 107, n. 14.
Tropidophora pulchra, *Gray, Cat. Cycl.* p. 38, n. 4.
Cyclostomus pulcher, *Pfr. Consp.* n. 296; *Pneum. Mon.* p. 203.

Hab. The Seychelle Islands.

23. Cyclostomus Kraussianus.

Shell globose-conical, rather solid, faintly striate, sculptured with very numerous keel-like raised ridges, which are smaller alternately, opaque, lead-coloured grey, with very indistinct, irre-

gular bands; spire turbinate, rather pointed; whorls 5, convex, the last one more distinctly keeled on the periphery, scarcely convex beneath; umbilicus middle-sized, pervious; aperture little oblique, fulvid-grayish within; peristome white, thin, expanded, shortly interrupted on the penultimate whorl. Height 12, greatest breadth, 14½, least br. 12 mill.

Cyclostoma Kraussianum, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 347, t. 43, f. 17, 18.
Cyclostomus Kraussianus, *Pfr. Consp.* n. 297, p. 62; *Pneum. Mon.* p. 204.

Hab. Natal, South Africa.

24. Cyclostomus castaneus.

Shell globose-conical, thin, obliquely slightly striate and sculptured with numerous rather sharp spiral ridges, shining, dark chestnut-coloured; spire raised conical, rather blunt; whorls 4½, angularly convex, the last one beset with six nearly equal ridges, and with a greater number of very crowded spiral striæ within the narrow umbilicus; aperture little oblique, nearly circular; peristome simple, thin, with both margins expanded, approximate, not united. Height 9, greatest breadth 11, least br. 9 mill.

Cyclostoma castaneum, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 337, t. 42, f. 25, 26.
Cyclostomus castaneus, *Pfr. Consp.* n. 298, p. 63; *Pneum. Mon.* p. 204.

Hab. Madagascar.

25. Cyclostomus fusculus.

Shell globose-conical, thin, sculptured with rather numerous raised spiral lines, and with a single stronger, keel-like, peripherical ridge, scarcely shining, uniformly fuscous, with one narrow reddish-brown band below the pale keel; spire conical, rather blunt; whorls 5, convex, the last one girdled sometimes with a second keel above, minutely grooved spirally beneath; umbilicus extremely narrow; aperture little oblique, roundish-ovate; peristome simple, thin, with both margins slightly expanded, approximate, not joined. Height 9, greatest breadth 11½, least br. 9½ mill.

Cyclostoma fusculum, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 336, t. 42, f. 23, 24.
Cyclostomus fusculus, *Pfr. Consp.* n. 299, p. 63; *Pneum. Mon.* p. 205.

Locality unknown.

26. Cyclostomus ? trochlea.

Shell narrowly umbilicated, pyramidally turreted, smooth, whitish; apex rather blunt; suture impressed; whorls 5, angularly convex, with one keel on the upper side, last whorl furnished with three keels, one above, the second about the middle, and the third round the pervious umbilicus; aperture oblique, circular, forming two-sevenths of the total length; peristome sharp, scarcely angulated at the termination of the lower keel. Length 3, breadth 2 mill.

Cyclostoma trochlea, *Benson, in Ann. and Mag.* 1851, viii. p. 189; *Pfr. Ic.* n. 410, t. 49, f. 29, 30.
Cyclostomus trochlea, *Pfr. Consp.* n. 300; *Pneum. Mon.* p. 205.

Hab. The Neilgherries Mountains (Jerdon).

§ 3. *Shell single keeled, turbinate-conical.*

27. Cyclostomus Madagascariensis. B. M.

Shell globose-turbinate, solid, rather smooth, sculptured with obsolete raised lines, opaque, flesh-coloured, painted with unequal violaceous bands; spire turbinate, rather pointed; whorls 6, convex, increasing rapidly, the last one whitish above, marked with a single peripherical keel, convex beneath, grooved spirally within the umbilicus, which is wide, rather funnel-shaped; aperture little oblique, nearly circular, shining and blackish within; peristome simple, orange-red, with a pale edge, bell-shaped, expanded, arcuately emarginated on the penultimate whorl. Height 27, greatest breadth 39, least br. 31 mill.

Cyclostoma Madagascariensis, *Gray, in Griff. An. Kingd.* t. 28, f. 4.
Cyclostoma Duisabonis, *Grateloup, in Act. Bord.* xi. p. 435, t. 3, f. 2.
Cyclostoma obsoletum, var., *Sow. Thes.* t. 27, f. 125.
Cyclostoma Madagascariense, *Sow. Thes. Suppl.* n. 177, p. 157*, t. 31, *A.* f. 289; *Pfr. Ic.* n. 287, t. 39, f. 1, 2.
Cyclophora Madagascariensis, *Swains. Malac.* p. 336.
Tropidophora tricarinata var., *Gray, Cat. Cycl.* p. 39, and Tr. Duisabonis, *Gray*, l. c. p. 42, n. 17.
Cyclostomus Madagascariensis, *Pfr. Consp.* n. 301; *Pneum. Mon.* p. 205.

Hab. Madagascar.

28. Cyclostomus unicarinatus.

Shell depressed-turbinate, rather thin, faintly striate spirally, flesh-coloured, marbled with fuscous or banded with chestnut-colour; spire conical, rather pointed; whorls $5\frac{1}{2}$, convex, the last violaceous anteriorly, furnished, in the middle, with a single compressed, sharp keel, crowdedly grooved round the

umbilicus; aperture rather oblique, nearly circular, very shining, purplish within; peristome simple, rufous, orange-coloured or white, bell-shaped, expanded, with the margins joined by a lunarly-indented callus, upper margin much dilated, columellar margin reflexed. Height 20, greatest breadth 34, least br. 27 mill.

Cyclostoma unicarinata, *Lam. Hist.* vi. p. 144, n. 5; *Ed. Desh.* viii. p. 355; *Encycl. Méth.* t. 461, f. 1; *Desh. in Enc. Méth.* ii. p. 40, n. 4.
Cyclostoma fulvifrons, *Sow. Spec. Conch.* f. 122; *Reeve, Conch. Syst.* t. 185, f. 20.
Cyclostoma unicarinatum, *Sow. Thes.* n. 84, p. 120, t. 26, f. 120; *Pfr. Ic.* n. 191, p. 174, t. 25, f. 7 (from *Sowerby*).
Cyclophora unicarinata, *Swains. Malac.* p. 336.
Tropidophora unicarinata, *Pfr. in Z.* f. *M.* 1847, p. 106, n. 4.
Tropidophora tricarinata var., *Gray, Cat. Cycl.* p. 39.
Cyclostomus unicarinatus, *Pfr. Consp.* n. 302; *Pneum. Mon.* p. 206.

Hab. Madagascar.

§ 4. *Shell not keeled, depressed.*

29. Cyclostomus? vittatus. B. M.

Shell depressed, nearly discoidal, rather solid, marked with crowded oblique striæ and with very numerous spiral lines, which are more indistinct on the middle of the last whorl, opaque, whitish, sometimes irregularly striped with yellow, painted with 8–14 unequal chestnut-coloured bands; spire somewhat raised, rather mucronate; whorls 5, convex, the last one large, somewhat depressed; umbilicus very broad and open; aperture slightly oblique, ovate, fulvid within with brown bands; peristome whitish, shortly reflexed, with the margins almost contiguous, joined by a white, slightly-indented callus, right margin sinuate above. Height 19, greatest breadth 38, least br. 31 mill.

Cyclostoma vittatum, *Sow. Spec. Conch.* f. 91–94; *Reeve, Conch. Syst.* t. 185, f. 122; *Sow. Thes.* n. 62, p. 112, t. 25, f. 89, 90; *Pfr. Ic.* n. 82, p. 87, t. 11, f. 5, 6.
Cyclophorus? vittatus, *Pfr. in Z.* f. *M.* 1847, p. 108, n. 26; *Gray, Cat. Cycl.* p. 21, n. 28; *Pfr. Consp.* n. 124.
Cyclostomus? vittatus, *Pfr. Pneum. Mon.* p. 207.

Hab. Madagascar.

30. Cyclostomus? Moulinsii. B. M.

Shell orbiculate, rather solid, crowdedly and slightly spirally grooved, fulvous-whitish, painted with numerous, sometimes confluent, brown lines and one broader peripherical band, paler beneath; spire very short, mucronate; whorls 5, convex, en-

larging rapidly, the last one impressed along the suture; umbilicus broad, open; aperture oblique, nearly circular, banded within with white and chestnut-colour; peristome shortly expanded all round, with the margins nearly contiguous, joined by a lunarly-indented callus, right margin sinuate above. Height 16, greatest breadth 35, least br. 26 mill.

Cyclostoma Moulinsii, *Grateloup, in Act. Soc. Linn. Bord.* xi. p. 444, t. 3, f. 19; *Pfr. Ic.* n. 6, p. 15, t. 2, f. 18, 19.
Cyclostoma Desmoulinsii, *Sow. Thes.* n. 97, p. 125, t. 25, f. 97.
Cyclophorus? Moulinsii, *Pfr. in Z.* f. *M.* 1847, p. 108, n. 29; *Gray, Cat. Cycl.* p. 21, n. 27; *Pfr. Consp.* n. 125.
Cyclostomus? Moulinsii, *Pfr. Pneum. Mon.* p. 208.

Hab. Madagascar.

§ 5. *Shell not keeled, globose-turbinate; peristome reflexed, broad.*

31. Cyclostomus euchilus.

Shell turbinate-globular, rather solid, crowdedly and obliquely striate, indistinctly decussated by more distant impressed lines, somewhat shining, whitish, marbled with violaceous-brownish and fulvous; spire turbinately raised, with the apex rather pointed; whorls $5\frac{1}{2}$, convex, enlarging rapidly, last rounded, slightly depressed along the suture, with a single white peripherical band, crowdedly and deeply spirally furrowed beneath; umbilicus middle-sized, funnel-shaped; aperture scarcely oblique, rather angularly rounded, shining and purplish-flesh-coloured within; peristome nearly continuous, white, with the margins dilated above and joined by a slightly-emarginated callus, right and basal margins very broad, vaulted and reflexed, left margin narrow, scarcely reflexed. Height 28, greatest breadth 43, least br. 32 mill.

Cyclostoma euchilum, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 288, t. 39, f. 3, 4.
Cyclostomus euchilus, *Pfr. Consp.* n. 303, p. 72; *Pneum. Mon.* p. 208.

Hab. Madagascar.

32. Cyclostomus multifasciatus.

Shell turbinate-conical, with numerous bands, subumbilicate, transversely striate; umbilicus covered; spire rather raised, very pointed; whorls 7, rounded, last ventricose; aperture wide, roundish, banded within; lip reflexed externally, with the edge white; columella callous, saffron-coloured. Height 30–35, breadth 30–35 mill.

Cyclostoma multifasciata, *Grateloup, in Act. Bord.* xi. p. 436, t. 3, f. 3.
? Tropidophora multifasciatum, *Gray, Cat. Cycl.* p. 41, n. 16.
Cyclostomus multifasciatus, *Pfr. Consp.* n. 304; *Pneum. Mon.* p. 209.

Hab. Madagascar (Duisabo).

33. Cyclostomus zonatus.

Shell subumbilicate, globose-pyramidal, rather thin, nearly smooth (slightly decussated under a lens by longitudinal and spiral striæ), whitish-gray; spire conical, rather pointed; suture rather deep; whorls 6, rounded, last ventricose, girdled with a broad blackish band below the middle, spirally grooved round the umbilicus; aperture rather perpendicular, ovate-roundish; peristome interrupted, milk-white, broadly reflexed. Height and breadth 28 mill.

Cyclostoma zonatum, *Petit, in Journ. Conch.* 1850, i. p. 50, t. 4. f. 7.
Cyclostomus zonatus, *Pfr. Consp.* n. 305; *Pneum. Mon.* p. 209.

β. Smaller, with one or more bands; right margin of the peristome broadly expanded; columellar margin narrow, reflexed above into a short lamina, which almost covers the umbilicus. Height 20, greatest breadth 20, least br. 15 mill. (*Pfr. Ic.* n. 291, t. 39, f. 22, 23.)

Hab. Madagascar.

34. Cyclostomus obsoletus. B. M.

Shell turbinate, rather solid, faintly spirally striate above, slightly shining, ash-gray, painted with various blueish-fuscous bands; spire conical, rather pointed; whorls 6, convex, the last one deeply grooved spirally round the funnel-shaped umbilicus; aperture scarcely oblique, ovate, grayish-chestnut-coloured within; peristome simple, white, broadly expanded, with the margins joined by a lunarly-indented callus. Height 22, greatest breadth 29, least br. 23 mill.

Cyclostoma obsoleta, *Lam. Hist.* vi. p. 144, n. 7; *Ed. Desh.* viii. p. 355; *Deless. Recueil*, t. 29, f. 11; *Chenu, Ill. Conch.* t. 1, f. 11.
Cyclostoma obsoletum, *Reeve, Conch. Syst.* t. 183, f. 4; *Sow. Thes.* n. 88, p. 121, t. 27, f. 124; *Pfr. Ic.* n. 23, p. 32, t. 5, f. 8, 9.
Tropidophora obsoleta, *Gray, Cat. Cycl.* p. 40, n. 6.
Cyclostomus obsoletus, *Pfr. Consp.* n. 306; *Pneum. Mon.* p. 210.
β.? Cyclostoma obsoleta var., marmorata, *Grat. in Act. Bord.* xi. p. 443, t. 3, f. 17.

Hab. Madagascar.

35. Cyclostomus citrinus. B. M.

Shell globose-turbinate, rather solid, crowdedly and slightly spirally striate above, rather shining, white or yellowish; spire turbinate, rather blunt; whorls 6, convex, the last one smooth on the periphery, closely spirally furrowed round the funnel-shaped umbilicus; aperture somewhat oblique, circular; peristome expanded and reflexed, with the margins approximate, joined by a lunarly-indented callus, right margin slightly sinuate above. Height 21, greatest breadth 32, least br. 26 mill.

Cyclostoma citrinum, *Sow. Thes.* n. 76, p. 117, t. 25, f. 104; *Pfr. Ic.* n. 170, p. 157, t. 21, f. 22 (copied).
? Tropidophora citrina, *Gray, Cat. Cycl.* p. 41, n. 11.
Cyclostomus citrinus, *Pfr. Consp.* n. 307; *Pneum. Mon.* p. 211.

β. Smaller; more distinctly decussated above.

Cyclostoma rugosum, *Sow. Thes.* n. 87, p. 121, t. 26, f. 123. (Not *Lam.*)
Cyclostoma semidecussatum, *Pfr. in Z.* f. *M.* 1847, p. 106, n. 65; *Ic.* n. 168, p. 156, t. 21, f. 17–19.

Hab. Trinidad.

36. Cyclostomus xanthochilus.

Shell globose-conical, solid, irregularly and faintly striate, somewhat shining, grayish-fulvous, indistinctly striped and banded with brown; spire turbinate, rather pointed; whorls 6, convex, last rounded, rather flattened beneath; umbilicus narrow, scarcely pervious; aperture nearly perpendicular, rather circular, shining blackish within; peristome shortly interrupted, shortly expanded all round, fuscous-orange-coloured, with the margins joined by a short slightly-indented callus. Height 20, greatest breadth 27, least br. 21 mill.

Cyclostoma xanthocheilus, *Sow. Thes. Suppl.* n. 179, p. 158*, t. 31, *A.* f. 294, 295.
Cyclostoma xanthochilum, *Pfr. Ic.* n. 233, t. 34, f. 5, 6.
Cyclostomus xanthochilus, *Pfr. Consp.* n. 308; *Pneum. Mon.* p. 211.

Hab. Madagascar.

37. Cyclostomus Sowerbyi. B. M.

Shell globose-conoidal, rather solid, slightly decussated above by very close-set distinct striæ of growth and raised spiral lines, cinnamon-coloured, yellowish towards the apex, with the upper ridges chestnut-coloured, articulated with white; spire conoidal, rather blunt; whorls 5, convex, the last one violaceous anteriorly, rather smooth, and marked with a single chestnut-coloured band below the periphery; umbilicus middle-sized;

aperture nearly perpendicular, circular, fulvous within; peristome continuous, white, broadly expanded and shortly reflected, shortly affixed to the penult whorl. Operculum shelly, rather concave externally. Height 15, greatest breadth 22, least br. 16½ mill.

Cyclostoma megacheilus, *Sow. Thes.* n. 114, p. 131, t. 31, f. 276. (Not *Pot. & Mich.*)
Cyclostoma Sowerbyi, *Pfr. in Z.* f. *M.* 1847, p. 58; *Ic.* n. 151, p. 143, t. 19, f. 10–12.
Cyclophorus? Sowerbyi, *Pfr. in Z.* f. *M.* 1847, p. 107, n. 12; *Gray, Cat. Cycl.* p. 18, n. 12.
Cyclostomus Sowerbyi, *Pfr. Consp.* n. 309; *Pneum. Mon.* p. 212.

Locality unknown.

§ 6. *Shell not keeled, globose-turbinate; peristome narrow, reflected.*

38. Cyclostomus aplustre.

Shell globose-turbinate, thin, slightly decussated with very crowded striæ of growth and spiral lines, not shining, white, marked above with five or six fuscous bands; spire turbinate, rather pointed; whorls 5½, convex, increasing rapidly, last cylindrical, not descending, rather uniformly white beneath; umbilicus middle-sized, deep; aperture oblique, roundish, rather angulated, with the bands chestnut-coloured within; peristome simple, thin, interrupted, shortly expanded, with the columellar margin shortly dilated and reflected. Operculum? Height 22, greatest breadth 29, least br. 25 mill.

Cyclostoma aplustre, *Sow. in Proc. Z. S.* 1849, p. 15; *Moll.* t. 2, f. 4, 5; *Pfr. Ic.* n. 230, t. 33, f. 5, 7.
Tropidophora aplustris, *Gray, Cat. Cycl.* p. 40, n. 7.
Cyclostomus aplustre, *Pfr. Consp.* n. 310; *Pneum. Mon.* p. 212.

Hab. Madagascar.

39. Cyclostomus asper. B. M.

Shell subglobose, conical, solid, slightly decussated by the striæ of growth and crowded spiral furrows, fulvous; spire conoidal, slightly truncate; whorls 5, convex, the upper ones pale, the last girdled with one whitish band on the periphery and with a fuscous band below the other; aperture rather circular, brown within; peristome expanded, white, with the margins approximate, joined by a slightly-indented callus; columellar margin dilated, reflexed. Height 20, greatest breadth 28, least br. 22 mill.

Cyclostoma asperum, *Potiez & Mich. Gal. Douai*, i. p. 233, t. 23, f. 15, 16; *Pfr. Ic.* n. 86, p. 90, t. 11, f. 3, 4.

Cyclostoma Harveyanum, *Sow. Spec. Conch.* f. 210*; *Reeve, Conch. Syst.* t. 184, f. 13; *Sow. Thes.* n. 106, p. 128, t. 30, f. 250.
Tropidophora aspera, *Gray, Cat. Cycl.* p. 40, n. 9.
Cyclostomus asper, *Pfr. Consp.* n. 311; *Pneum. Mon.* p. 213.

Hab. Madagascar.

40. Cyclostomus pyrostomus. B. M.

Shell globose-turbinate, rather solid, nearly smooth, slightly grooved spirally above, shining, fulvous flesh-coloured or whitish, indistinctly striped and with a single pale violaceous band below the periphery; spire turbinate, rather pointed; whorls 5½, convex, last cylindrical, smooth beneath; umbilicus middle-sized; aperture somewhat oblique, ovate-roundish, anteriorly blackish within; peristome simple, fire-red, with the margins joined by a short indented callus; right margin scarcely expanded; columellar margin slightly reflected. Height 14–18, greatest breadth 18½–25, least br. 15½–21 mill.

Cyclostoma hæmastoma, *Grateloup, in Act. Bord.* xi. p. 437, t. 3, f. 5. (Not *Anton.*)
Cyclostoma pyrostoma, *Sow. Spec. Conch.* f. 227, 228; *Reeve, Conch Syst.* t. 183, f. 9; *Sow. Thes.* n. 108, p. 129, t. 29, f. 200; *Pfr. Ic.* n. 171, p. 157, t. 21, f. 23 (copied), t. 34, f. 1–4.
Tropidophora? pyrostoma, *Gray, Cat. Cycl.* p. 41, n. 13.
Cyclostomus pyrostomus, *Pfr. Consp.* n. 312; *Pneum. Mon.* p. 214.

Hab. Madagascar, Mayotte.

41. Cyclostomus? striatulus.

Shell globose-turbinated, solid, marked above with oblique striæ, and rather crowded concentrical raised lines, scarcely shining, yellowish-white, spire shortly turbinated, with the apex rather blunt; whorls 5, convex, the upper ones smooth, the last one inflated, obsoletely angular at its periphery; umbilicus middle-sized, deep; aperture somewhat oblique, roundish, rather angular; peristome continuous, shortly affixed, thickened, slightly expanded, angulated above. Height 15, greatest breadth 25½, least br. 21 mill.

Cyclostoma striatulum, *Pfr. in Proc. Zool. Soc.* 1852; *Ic.* n. 403, t. 49, f. 1, 2.
Cyclostomus? striatulus, *Pfr. Pneum. Mon.* p. 214.

Locality unknown.

42. Cyclostomus fulvescens. B. M.

Shell globose-conical, rather thin, equally sculptured with crowded raised spiral lines, fuscous-fulvous; spire conical, rather pointed;

whorls $5\frac{1}{2}$, convex, the last one slightly angulated at the periphery; umbilicus narrow, pervious; aperture oblique, ovate, chestnut-coloured within; peristome simple, thin, pale, shortly expanded, with nearly contiguous margins. Height 16, greatest breadth 22, least br. 18 mill.

Cyclostoma fulvescens, *Sow. in Proc. Z. S.* 1843, p. 63; *Thes.* p. 23, n. 99, t. 25, f. 79, 80; *Pfr. Ic.* n. 30, p. 39, t. 5, f. 10, 11.
Tropidophora? fulvescens, *Gray, Cat. Cycl.* p. 41, n. 12.
Cyclostomus fulvescens, *Pfr. Consp.* n. 313; *Pneum. Mon.* p. 215.

Hab. Madagascar.

43. Cyclostomus insularis.

Shell perforate, globose-conical, rather solid, sculptured with crowded, blunt, spiral ridges, rather coarsely decussated with very close longitudinal lines, not shining, dirty white, with several pale violaceous bands; spire shortly turbinate, rather blunt; whorls 5, convex, very slightly crenulate along the suture, last sculptured with more raised ridges beneath; aperture scarcely oblique, rather angularly roundish; peristome thin, expanded, slightly reflexed, with the margins approximate, joined by a rather indented callus, upper margin sinuate, left margin narrower. Height $13\frac{1}{2}$, greatest breadth 17, least br. $13\frac{1}{2}$ mill.

Cyclostoma insulare, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 368, t. 45, f. 5, 6.
Cyclostomus insularis, *Pfr. Consp.* n. 314, p. 63; *Pneum. Mon.* p. 215.

Hab. Isle of France.

44. Cyclostomus reticulatus.

Shell turbinate, rather thin, marked with indistinct raised spiral lines, diaphanous, chestnut-coloured, reticulated irregularly with opaque white stripes and speckles; spire turbinate, rather pointed; whorls 5, very convex, enlarging rapidly, last rounded, obsoletely grooved spirally within the middle-sized umbilicus; aperture little oblique, roundish, slightly angulated; peristome rather simple, chestnut-coloured, with the edge white, shortly interrupted, with the margins joined by thin callus. Height 13, greatest breadth 16, least br. 13 mill.

Cyclostoma reticulatum, *A. Adams & Reeve, Voy. Samarang, Moll.* p. 57, t. 14, f. 8; *Pfr. Ic.* n. 237, t. 34, f. 13–16.
Cyclostomus reticulatus, *Pfr. Consp.* n. 315; *Pneum. Mon.* p. 216.

β. Larger; with the spiral striæ very obsolete; peristome broader, expanded, slightly reflexed; umbilicus wider; height 15, greatest breadth 22, least br. 17 mill.

Hab. Madagascar.

45. Cyclostomus Goudotianus. B. M.

Shell globose-conical, thin, smooth, very faintly spirally striate, diaphanous, yellowish-fulvous, with 1–3 chestnut-coloured bands; spire conoidal, rather blunt; whorls 5, convex, last ventricose, sharply spirally furrowed beneath and within the middle-sized umbilicus; aperture rather circular, of the same colour within; peristome thin, expanded, slightly interrupted, with the columellar margin somewhat reflexed. Height 14, greatest breadth 17, least br. 14 mill.

Cyclostoma Goudotianum, *Sow. Thes.* n. 110, p. 130, t. 29, f. 193; *Pfr. Ic.* n. 106, p. 106, t. 13, f. 8–10.
Cyclostoma ligatum, var.? *Krauss, Südafr. Moll.* p. 82.
Cyclostomus Goudotianus, *Gray, Cat. Cycl.* p. 43, n. 2; *Pfr. Consp.* n. 316; *Pneum. Mon.* p. 216.

Hab. Natal (Krauss); East India (Menke).

46. Cyclostomus virgatus. B. M.

Shell scarcely subperforate, turreted-conical, rather thin, smooth, yellowish or whitish, girdled with chestnut-coloured lines and with a single broader band below the periphery; spire turreted, with the apex rather blunt; whorls 6, convex, last cylindrical, not descending; aperture scarcely oblique, ovate-roundish, uniformly coloured within; peristome sharp, slightly expanded, interrupted, with the columellar margin somewhat dilated, reflexed. Length 19, breadth 11 mill.

Cyclostoma virgatum, *Sow. Thes.* n. 111, p. 130, t. 29, f. 192; *Pfr. Ic.* n. 105, p. 106, t. 13, f. 1–4.
Cyclostomus virgatus, *Gray, Cat. Cycl.* p. 44, n. 7; *Pfr. Consp.* n. 317; *Pneum. Mon.* p. 217.

β. With the spire less elongated, orange-coloured, with one chestnut-coloured band below the periphery, one sutural and two basal lines. (*Pfr. Ic.* t. 13, f. 5–7.) B. M.

Cyclostoma consocium, *Féruss. Mus.*
Cyclostomus consocius, *Gray, Cat. Cycl.* p. 43, n. 3.

Hab. Madagascar.

47. Cyclostomus? Carolinensis.

Shell turreted-conical, rather thin, marked above with slight and crowded spiral ridges, somewhat shining, white; spire elongated, with the apex rather blunt; whorls 6, convex, last rounded, smooth below the middle; umbilicus narrow, not pervious; aperture scarcely oblique, rather circular; peristome simple, sharp, with the margins approximate; right margin straight;

columellar margin dilated in the middle, slightly reflexed. Height 12, greatest breadth 12, least br. 10 mill.

Cyclostoma Carolinense, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 344, t. 43, f. 10–11.
Cyclostomus Carolinensis, *Pfr. Consp.* n. 318, p. 63; *Pneum. Mon.* p. 217.

Hab. The Caroline Islands.

48. Cyclostomus tenuis. B. M.

Shell globose-pyramidal, thin, nearly white, dull; spire rather acuminated, but with an obtuse apex; volutions 5–6, rounded, slightly spirally striated posteriorly; the last volution with a single fulvous band, and smooth in front; suture deep; aperture round; peritreme thin, very slightly reflected; umbilicus middling. Length 15, breadth 9 mill.

Cyclostoma tenue, *Sow. Thes.* n. 134, p. 138, t. 31, f. 265; *Pfr. Ic.* n. 190, p. 174, t. 25, f. 11 (copied).
Cyclostomus tenuis, *Gray, Cat. Cycl.* p. 44, n. 9; *Pfr. Consp.* n. 319; *Pneum. Mon.* p. 218.

Hab. Africa (Gray, Sowerby).

49. Cyclostomus cincinnus. B. M.

Shell conical, thin, slightly sculptured with crowded spiral ridges, uniformly white or marked with a single fuscous line below the periphery; spire conical, with the apex rather blunt; whorls 5, convex, the last one nearly smooth in the middle, crowdedly grooved beneath round the narrow scarcely pervious umbilicus; aperture nearly perpendicular, rather circular; peristome simple, sharp, with the margins almost contiguous; columellar margin slightly reflexed. Length 11, breadth 7½ mill.

Cyclostoma cincinnus, *Sow. in Proc. Z. S.* 1843, p. 60; *Thes.* n. 32, p. 102, t. 24, f. 77, 78; *Pfr. Ic.* n. 140, p. 134, t. 18, f. 1–3.
Cyclostoma modestum, *Feruss. MSS. in Mus. Brit.*
Cyclostomus cincinnus, *Gray, Cat. Cycl.* p. 44, n. 8; *Pfr. Consp.* n. 320; *Pneum. Mon.* p. 218.

Hab. Madagascar? (Gray.)

50. Cyclostomus ligatulus.

Shell oblong-conoidal, thin, umbilicated, subturreted, transversely slightly striate, many-banded; spire pointed; whorls 5–6, convex; aperture obovate; lip sharp, scarcely reflexed. Height 14–15, breadth 10 mill.

Cyclostoma ligatula, *Grateloup, in Act. Bord.* xi. p. 445, t. 3, f. 20.
Cyclostomus? ligatulus, *Pfr. Consp.* n. 321; *Pneum. Mon.* p. 219.

Hab. Madagascar (Mr. Duisabo).

This may perhaps be identical with the preceding species.

51. Cyclostomus Zanguebaricus.

Shell globose-conical, rather thin, sculptured with somewhat distant blunt spiral lines, whitish or yellowish; spire turbinate, rather pointed; whorls 5, convex, last ventricose, girdled with several chestnut-coloured lines and a single broader band below the middle, spirally grooved beneath round the narrow umbilicus; aperture nearly perpendicular, roundish, slightly angulated; peristome simple, scarcely interrupted on the penult whorl, very shortly expanded. Height $8\frac{1}{2}$, greatest breadth 10, least br. 9 mill.

Cyclostoma Zanguebaricum, *Petit, in Journ. Conch.* 1850, i. p. 53, t. 3, f. 5; *Pfr. Ic.* n. 292, t. 39, f. 24, 25.
Cyclostomus Zanguebaricus, *Pfr. Consp.* 322; *Pneum. Mon.* p. 219.

Hab. Zanzibar (Guillain).

52. Cyclostomus subliratus.

Shell globose-conical, thin, sculptured with spiral ridges, not shining, pale reddish-horn-coloured; spire raised, turbinate, with the apex rather blunt; whorls 5, convex, last rounded, with the ridges more obsolete; aperture somewhat oblique, oblong-roundish; peristome simple, thin, scarcely expanded, with the margins nearly contiguous, united by callus. Height 9, greatest breadth 10, least br. 8 mill.

Cyclostoma subliratum, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 248, t. 43, f. 37, 38.
Cyclostomus subliratus, *Pfr. Consp.* n. 323, p. 64; *Pneum. Mon.* p. 220.

Locality unknown.

53. Cyclostomus Novæ Hiberniæ.

Shell turbinate-globose, thin, faintly striated, diaphanous, amber-coloured or reddish-brown; spire turbinate, acute; whorls $5\frac{1}{2}$, moderately convex, last large, rounded; aperture wide, rather perpendicular, nearly circular; peristome nearly continuous, thickened, shortly expanded, lunarly indented below the umbilicus, which is extremely narrow, not pervious; left margin angularly dilated and expanded in the middle. Operculum calcareous. Height 9, greatest breadth 11, least br. $8\frac{1}{2}$ mill.

Cyclostoma Novæ Hiberniæ, *Quoy & Gaim. Voy. Astrol.* ii. p. 182, t. 12, f. 15–19; *Desh. in Lam.* viii. p. 368, n. 33; *Pfr. Ic.* n. 199, p. 179, t. 30, f. 36, 37.
Cyclostoma vitreum, *Sow. Thes.* n. 124, p. 134, t. 30, f. 252; *Pfr. Ic.* n. 172, p. 158, t. 21, f. 24–26.
Cyclostomus Novæ Hiberniæ, *Gray, Cat. Cycl.* p. 43, n. 4; *Pfr. Consp.* n. 324; *Pneum. Mon.* p. 220.

Hab. New Ireland (Quoy, Hinds).

54. Cyclostomus? filocinctus.

Shell turbinate-globose, smooth near the depressed suture, otherwise girdled with numerous raised lines, whitish, with a fuscous periostraca; spire raised, rather conic, with the apex nipple-shaped; whorls $4\frac{1}{2}$, rounded, last cylindrical; aperture circular, scarcely angular above, equalling two-fifths of the total height, slightly sinuate near the umbilicus, which is deep and open; peristome double, inner edge simple, sharp, outer edge shortly reflected. Height $2\frac{1}{2}$, greatest breadth 3, least br. $2\frac{1}{2}$ mill.

Cyclostoma filocinctum, *Benson, in Ann. and Mag. N. H.* 1851, viii. p. 188; *Pfr. Ic.* n. 409, t. 49, f. 26–28.
Cyclostomus? filocinctus, *Pfr. Consp.* n. 325; *Pneum. Mon.* p. 221.

Hab. The Neilgherries Mountains (Jerdon).

§ 7. *Shell not keeled, globose-turbinate; peristome straight.*

55. Cyclostomus ligatus. B. M.

Shell turbinate, rather solid, obsoletely reticulated with more or less distinct longitudinal and concentric striæ, somewhat shining, fulvous flesh-coloured, variously painted with narrow blueish-fuscous bands; spire conic, with the apex rather blunt, grayish; whorls 5, convex, the last one more distinctly grooved round the umbilicus, which is narrow, scarcely pervious; aperture scarcely oblique, rather circular, orange-coloured within, with the bands translucent; peristome continuous, shortly affixed, straight, slightly angulated above, somewhat thickened on the left side. Operculum testaceous, with four volutions. Height 18, greatest breadth 20, least br. 17 mill.

Nerita ligata, *Müller, Hist. Verm.* ii. p. 181, n. 368.
Turbo ligatus, *Chemn. Conch.* ix. 2, p. 60, t. 123, f. 1071, 1072; *Dillw. Descr. Cat.* ii. p. 865, n. 120; *Wood, Ind.* t. 32, f. 122.
Cyclostoma ligata, *Lam. Hist.* vi. p. 147, n. 21; *Ed. Desh.* viii. p. 359, n. 20; *Pot. & Mich. Gal. Douai*, i. p. 234, t. 23, f. 23, 24?
Cyclostoma ligatum, *Pfr. Ic.* n. 24, p. 33, t. 4, f. 12, 13, t. 8, f. 3, 4; *Krauss, Südafr. Moll.* p. 82.

Cyclophora ligata, *Swains. Malac.* p. 336?
Cyclostomus ligatus, *Gray, Cat. Cycl.* p. 42, n. 1; *Pfr. Consp.* n. 326; *Pneum. Mon.* p. 221.

β. Smaller; height 13, greatest breadth 15, least br. 12 mill. B. M.

Cyclostoma affine, *Sow. Thes.* n. 22, p. 98, t. 23, f. 25, 26; *Pfr. Ic.* n. 57, p. 62, t. 8, f. 17, 18.
Cyclostoma ligatum var., *Krauss, Südafr. Moll.* p. 82.
Cyclostomus ligatus var., *Gray, Cat. Cycl.* p. 43.

Hab. The Cape of Good Hope, Simon's Bay, Natal.

56. Cyclostomus lineatus.

Shell globose-conic, rather thin, smooth, diaphanous, fulvous, painted with chestnut-coloured spiral lines, which are alternatively smaller and slightly interrupted; spire turbinate, rather pointed; whorls 5½, convex, the last one rounded, girdled with a broader band below the periphery, crowdedly and spirally grooved within the narrow scarcely pervious umbilicus; aperture scarcely oblique, circular, slightly angulated; peristome simple, straight, white, with the margins approximate, joined by a somewhat indented callus. Operculum? Height 13, greatest breadth 15, least br. 13 mill.

Cyclostoma lineatum, *Pfr. in Proc. Zool. Soc.* 1851; *Ic.* n. 367, t. 45, f. 3, 4.
Cyclostomus lineatus, *Pfr. Consp.* n. 327, p. 64; *Pneum. Mon.* p. 222.

Locality unknown.

57. Cyclostomus undulatus.

Shell perforated, globose-conic, solid, spirally grooved all over; the furrows being deeper near the suture and on the lower side, fulvous-flesh-coloured, with a single chestnut-coloured band below the periphery; spire conic, rather pointed; whorls 5, convex, increasing rapidly, undulated on the upper edge near the suture, which is well marked; aperture oblique, nearly circular, brownish within and banded with white and chestnut-colour; peristome simple, straight, with the margins joined angularly; right margin somewhat sinuate; columellar margin slightly thickened and dilated. Height 12, greatest breadth 13, least br. 15 mill.

Cyclostoma fimbriata, *Lam. Hist.* vi. p. 148, n. 24; *Ed. Desh.* viii. p. 360, n. 23. (Not *Schum.*, nor *Quoy*, nor *Deless.*)
Cyclostoma undulatum, *Sow. Thes.* 25, p. 99, t. 23, f. 29, 30; *Pfr. Ic.* n. 94, p. 97, t. 12, f. 24–26.
Cyclostoma fimbriatum, *Petit, in Journ. Conch.* 1850, i. p. 42.

Cyclostomus undulatus, *Gray, Cat. Cycl.* p. 44, n. 6; *Pfr. Pneum. Mon.* p. 223.
Cyclostomus fimbriatus, *Pfr. Consp.* n. 328.

Hab. The island Mauritius.

58. Cyclostomus glaucus. B. M.

Shell ovate-conic, rather thick, closely striated spirally, of a reddish colour, with a glaucous tint; spire conoidal, rather blunt; suture slight, bordered with white, somewhat crenulated; whorls $4\frac{1}{2}$, moderately convex, the last sometimes shortly detached near the aperture; umbilicus very small, not pervious; aperture ovate, rather angular, fulvous and shining within; peristome straight, with the margins angularly joined above, left margin slightly thickened. Operculum testaceous, flat. Length 15, breadth 10 mill.

Cyclostoma glaucum, *Sow. Thes.* n. 28, p. 100, t. 24, f. 39; *Pfr. Ic.* n. 67, p. 72, t. 9, f. 3–5.
Cyclostoma striatum, *Menke, Synops.* ed. i. p. 40 (not described).
Cyclostoma breviale, *Gray, MSS. Brit. Mus.*
Cyclostomus glaucus, *Gray, Cat. Cycl.* p. 45, n. 11; *Pfr. Consp.* n. 329; *Pneum. Mon.* p. 223.

Hab. Alexandrette.

59. Cyclostomus costulatus. B. M.

Shell conoidally-globose, rather solid, sculptured with crowded concentric ridges, faintly transversely striated within the interstices, grayish-red; spire conoidal, with the apex nipple-shaped, sherry-coloured; whorls 5, convex, last ventricose; umbilicus extremely narrow, not pervious; aperture scarcely oblique, ovate-circular; peristome simple, straight, continuous, slightly angulated above. Operculum of five volutions, with the nucleus black. Length 15, breadth 11 mill.

Cyclostoma costulatum, *Ziegl. Mus.; Rossm. Ic.* vi. p. 49, t. 28, f. 395; *Pot. et Mich. Gal.* i. p. 234, t. 24, f. 1, 2; *Pfr. Ic.* n. 66, p. 71, t. 9, f. 6–8.
Cyclostoma sulcatum (not *Oliv.*), *Sow. Thes.* n. 27, p. 100, t. 23, f. 31.
Cyclostomus costulatus, *Gray, Cat. Cycl.* p. 44, n. 10; *Pfr. Consp.* n. 330; *Pneum. Mon.* p. 224.

β. Larger; flesh-coloured whitish, with the apex fulvous; length 19, breadth 13 mill.

Cyclostoma Olivieri, *Sow. MSS.; Pfr. Ic.* n. 169, p. 156, t. 21, f. 20, 21; *Charp. in Zeitschr. f. Mal.* 1847, p. 144.

Cyclostoma syriacum, *Ziegl. MSS.*
Cyclostoma orientale, *Rossm. MSS.*

Hab. Hungary, Kasan, &c.; the variety from Syria.

§ 8. *Shell not keeled, ovate-turreted; peristome straight.*

60. Cyclostomus sulcatus. B. M.

Shell rimate, ovate-conoidal, sculptured with concentric ridges, which often are stronger alternately, and crossed by very crowded, subtle, longitudinal striæ, dark flesh-coloured; spire conic, rather pointed, with the apex smooth, shining, red: whorls $5\frac{1}{2}$, rounded, the last one very shortly detached above, more strongly grooved beneath; aperture rather perpendicular, ovate, with the base somewhat produced, fulvous flesh-coloured and shining within; peristome straight, slightly thickened interiorly, continuous, angularly doubled above, left margin slightly dilated, flat. Operculum testaceous, flat, folded at its periphery. Length 18, breadth 10 mill.

Turbo Lincina, *Chemn. Conch.* ix. 2, p. 55, t. 123, f. 1060, b. c.
Cyclostoma sulcatum, *Drap. Hist.* p. 33, t. 13, f. 1; *Rossm. Ic.* vi. p. 48, t. 28, f. 394; *Terv. Catal. Alg.* p. 33; *Philippi, Moll. Sicil.* i. p. 144, ii. p. 119; *Pfr. Ic.* n. 63, p. 67, t. 9, f. 24–26.
Cyclostoma elegans var. c, *Drap. Tabl.* p. 38; *Hartm. in Neue Alpina*, i. p. 215.
Cyclostoma affinis, *Risso, Hist.* iv. p. 104.
Cyclostoma sulcata, *Dêsh. in Lam. Hist.* viii. p. 370, n. 38.
Cyclostoma polysulcatum, *Pot. & Mich. Gal.* i. p. 239, t. 24, f. 13, 14.
Cyclostoma Siculum, *Sow. Thes.* n. 43, p. 104, t. 24, f. 51, 52.
Cyclostomus sulcatus, *Gray, Cat. Cycl.* p. 46, n. 13; *Pfr. Consp.* n. 331; *Pneum. Mon.* p. 225.

β. Smooth, with the striæ indistinct.
Cyclostoma aurantium, *Anton, Verz.* p. 54, n. 1956.
Cyclostoma coloratum, *Ziegl. MSS.*

γ. With a single reddish-brown band below the periphery.
Cyclostoma phaleratum, *Ziegl. MSS.*

δ. Smaller.
Cyclostoma reticulatum, *Ziegl. MSS.*

ε. Smaller, more slender, dirty violaceous, whitish near the suture and on the lower side, or altogether whitish. B. M.
Cyclostoma Melitense, *Sow. Thes.* n. 41, p. 105, t. 24, f. 53, 54; *Pfr. Ic.* n. 139, p. 433, t. 13, f. 24, 25.
Cyclostomus Melitensis, *Gray, Cat. Cycl.* p. 46, n. 14.

ζ. More deeply rimate, whitish, with the ridges very regular.
Cyclostoma multisulcatum, *Pot. & Mich. Gal.* i. p. 238, t. 24, f. 11, 12; *Pfr. Ic.* n. 64, p. 69, t. 9, f. 21–23.
Cyclostoma tenellum, *Sow. Thes.* n. 38, p. 104, t. 24, f. 50.

Hab. Southern Europe and Algiers.

61. Cyclostomus elegans. B. M.

Shell subperforated, ovate-conoidal, minutely crossed by spiral and more crowded longitudinal striæ, violaceous or yellowish-gray, uniform or marbled, and indistinctly banded with horn-coloured spots; spire conic, rather blunt; whorls 5, convex, increasing rapidly; aperture rather perpendicular, ovate, fulvous within; peristome simple, straight, with the margins joined angularly, scarcely touching the penultimate whorl; columellar margin slightly expanded. Length 15, breadth 9 mill.

Nerita elegans, *Müll. Hist. Verm.* ii. 177, n. 363; *Schröt. Fluss. Conch.* p. 366, t. 9, f. 15.
Turbo Lincina, *Chemn. Conch.* ix. 2, t. 123, f. 1060, d, e.
Turbo elegans, *Gmel. Syst.* p. 3606, n. 74; *Mont. Test. Brit.* p. 342, t. 22, f. 7; *Poiret, Prodr.* p. 31, n. 2; *Pennant, Brit. Zool.* iv. p. 302, t. 85, f. 2; *Dillw. Cat.* ii. p. 863, n. 116; *Wood, Ind.* t. 32, f. 118.
Turbo striatus, *Da Costa, Brit. Conch.* p. 86, t. 5, f. 9.
Turbo reflexus, *Olivi, Adriat.* p. 170.
Cyclostoma elegans, *Drap. Tabl. Moll.* p. 38, n. 1; *Hist.* p. 32, t. 1, f. 5–8; *Lam. Hist.* vi. p. 148, n. 26; *Ed. Désh.* viii. p. 360, n. 25; *Brard. Hist. Coq. Terr.* p. 103, t. 3, f. 7, 8; *Sturm, Fauna*, vi. t. 3; *C. Pfeiffer, Naturg.* i. p. 74, t. 1, f. 9, t. 4, f. 30, 31; *Berkeley, in Zool. Journ.* vi. p. 278 (*Anat.*); *Blainv. Malacol.* t. 34, f. 7; *Turt. Man.* p. 93, f. 75, ed. *Gray*, p. 275, t. 7, f. 75; *Risso, Hist.* iv. p. 103; *Rossm. Ic.* i. p. 90, t. 2, f. 44, t. 5, f. 80–82; *Désh. in Encycl. Meth.* ii. p. 40, n. 6; *Bowd. Elem. of Conch.* t. 9, f. 14; *Guérin, Iconogr.* t. 12, f. 12; *Webb & Berth. Syn. Moll. Canar.* p. 321, n. 1; *Payrandeau, Moll. de Corse*, p. 105, n. 230; *Philippi, Sicil.* i. p. 143, ii. p. 119; *Kickx, Syn. Moll. Brab.* p. 69, n. 87; *Thomps. Land and fr. sh. Irel.* p. 37; *Dupuy, Moll. du Gers.* p. 63; *Sow. Thes.* n. 30, p. 101, t. 23, f. 32, 33; *Morelet, Moll. Portug.* p. 89; *Schmidt, Krain. Conch.* p. 20; *Pfr. Ic.* n. 68, p. 73, t. 9, f. 30–34; *Strobel, Malac. Trent.* p. 16.
Cyclostoma elegans, var. β, *Hartm. in Neue Alpina*, i. p. 215.
Cyclostomus elegans, *Montf. Conch. Syst.* ii. p. 287, t. 72; *Gray, Cat. Cycl.* p. 45, n. 12; *Pfr. Consp.* n. 332; *Pneum. Mon.* p. 227; *Fab. Columna, De Purp.* p. 18, f. 13; *List. Hist. Conch.* t. 27, f. 25; *Anim. Angl.* t. 2, f. 5; *Gualt. Ind. Test.* t. 4, f. *A*, *B*; *Argenv. Conch.* t. 28, f. 12; *Zoomorph.* t. 9, f. 9.

β. Smaller, brightly coloured.
Turbo marmoreus, *Brown, in Edinb. Journ. Nat. and Geogr. Sc.* i.

Cyclostoma marmoreum, *Sow. Thes.* n. 31, p. 101, t. 23, f. 34, 35.
Cyclostoma elegans var., *Pfr. Ic.* p. 75, t. 28, f. 23.
Cyclostomus elegans var., *Gray, Catal. Cycl.* p. 46.

Hab. Germany, Britain and Ireland, Illyria, France, Switzerland, Dalmatia, Greece; Algiers and the Canary Islands.

62. Cyclostomus fascicularis.

Shell perforated, ovate, acuminate, rather solid, sculptured very closely with longitudinal rib-like striæ, a little silk-shining, grayish-horn-coloured; spire conic, with the apex rather pointed; suture crenated by prominent bunches of ribs; whorls 5, moderately convex, the last one rounded, spirally grooved beneath; aperture scarcely oblique, ovate; peristome simple, straight, sharp. Operculum shelly, with few whorls, which are striated obliquely. Length 12, breadth 8 mill.

Cyclostoma fasciculare, *Pfr. in Proc. Zool. Soc.* 1851; *Ic.* n. 307, t. 40, f. 23, 24.
Cyclostomus fascicularis, *Pfr. Consp.* n. 333, p. 64; *Pneum. Mon.* p. 229.

Locality unknown.

63. Cyclostomus lævigatus.

Shell subperforate, ovate-conic, rather solid, grooved crowdedly and spirally, slightly shining, banded with white and brown; spire short, conic, rather blunt; whorls 4, scarcely convex, last ventricose; suture slightly fringed and crenate; aperture scarcely oblique, shining within; peristome simple, straight, white, with the margins approximate, angularly joined by a thin callus, columellar margin somewhat thickened and reflexed. Operculum testaceous, of few volutions. Length 14, breadth 8½ mill.

Cyclostoma lævigatum, *Webb & Berth, Syn. Moll. Canar.* p. 322; *Sow. Thes.* n. 49, p. 107, t. 24, f. 62, 63; *Pfr. Ic.* n. 100, p. 102, t. 13, f. 13, 14, n. 22, 23.
Cyclostoma Canariense, *Orb. Moll. Canar.* p. 76, t. 2, f. 30.
Cyclophorus lævigatus, *Gray, Cat. Cycl.* p. 43, n. 5; *Pfr. Consp.* n. 334; *Pneum. Mon.* p. 229.

Hab. Teneriffe.

64. Cyclostomus tectilabris.

Shell scarcely subperforate, ovate, rather thin, closely sculptured with sharp lamellar longitudinal folds, fulvous-whitish, often clouded with violaceous, painted with numerous series of reddish-brown points; spire ovate, shortly truncate; suture crenate; whorls remaining 4, convex, the last one slightly ascending anteriorly; aperture ovate, its base proceeding beyond

the axis; peristome rather simple, with the inner edge scarcely a little expanded. Operculum testaceous, flat, larger than the aperture, with its margin reflected abruptly far behind the margin of the aperture. Length 13, breadth 8 mill.

Cyclostoma tectilabre, *Adams, Contrib. to Conch.* p. 10; *Pfr. Ic.* n. 354, t. 44, f. 25–27.
Cyclostomus tectilabris, *Pfr. Consp.* 335; *Pneum. Mon.* p. 237.

Hab. Jamaica.

65. Cyclostomus? saccatus.

Shell deeply rimate, scarcely perforate, ovate-oblong, shortly truncate, thin, closely sculptured with thread-like longitudinal ribs, diaphanous, pale horn-coloured, painted with chestnut-coloured spots, arranged into bands; suture deep, spinulous under a lens: whorls remaining $3\frac{1}{2}$, convex, the last somewhat ascending and shortly detached anteriorly, bag-shaped beneath; aperture nearly circular, its base proceeding beyond the axis; peristome simple, continuous, scarcely a little expanded. Operculum? Length 12, breadth 8 mill.

Cyclostoma saccatum, *Pfr. in Proc. Zool. Soc.* 1851; *Ic.* n. 352, t. 43, f. 33, 34.
Cyclostomus? saccatus, *Pfr. Consp.* n. 336, p. 64; *Pneum. Mon.* p. 230.

Locality unknown.

66. Cyclostomus? dissectus.

Shell perforate, oblong, rather solid, sculptured with numerous concentric ridges and very close-set longitudinal striæ, whitish or flesh-coloured; spire truncate; whorls remaining 4, moderately convex, the last one detached anteriorly, keeled above; aperture nearly perpendicular, ovate; peristome continuous, straight, blunt, angulated above. Operculum? Length 15, breadth $8\frac{3}{4}$ mill.

Cyclostoma dissectum, *Sow. Thes.* n. 43, p. 105, t. 24, f. 58, 59; *Pfr. Ic.* n. 163, p. 152, t. 21, f. 1, 2.
Cyclostomus dissectus, *Gray, Cat. Cycl.* p. 47, n. 16; *Pfr. Consp.* n. 337; *Pneum. Mon.* p. 230.

Locality unknown.

67. Cyclostomus? solidus.

Shell almost imperforate, nearly cylindrical, solid, whitish, sculptured with rather distant flattened concentric ribs and very crowded longitudinal striæ; spire truncate; whorls remaining $4\frac{1}{2}$, convex, enlarging slowly, the last one scarcely ascending anteriorly; aperture perpendicular, ovate; peristome straight,

slightly thickened, angulated and doubled above. Length 10, breadth $4\frac{1}{2}$ mill.

Truncatella solida, *Menke, Synops.* ed. ii. p. 137.
Cyclostoma solidum, *Pfr. Ic.* n. 119, p. 116, t. 14, f. 4, 5.
Cistula ? solida, *Gray, Cat. Cycl.* p. 60, n. 15.
Cyclostomus ? solidus, *Pfr. Consp.* n. 338; *Pneum. Mon.* p. 231.

Locality unknown.

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68. Cyclostomus ? gratus.

Shell perforate, oblong-conic, solid, minutely crossed by raised spiral and very crowded longitudinal striæ, somewhat shining, flesh-coloured; spire stair-like, conic, with the apex purplish, rather blunt; whorls 5, convex, the last one slightly flattened beneath, somewhat angular at its periphery and round the perforation; aperture oblique, nearly circular, angular above, fire-red within; peristome simple, continuous, straight, with the left margin shortly expanded above, slightly reflected at its lower part. Operculum ? Length 7, breadth 5 mill.

Cyclostoma gratum, *Petit, in Journ. Conch.* 1850, i. p. 53, t. 3, f. 10; *Pfr. Ic.* n. 236, t. 34, f. 11, 12.
Cyclostoma tricolor, *Pfr. in Z.* f. *M.* 1849, p. 128 (March, 1850).
Cyclostomus ? gratus, *Pfr. Consp.* n. 339; *Pneum. Mon.* p. 231.

Hab. The island of Abd-el-Goury, near Socotora.

§ 9. *Shell not keeled, ovate-turreted, smooth. Peristome expanded, double.*

69. Cyclostomus Humphreyanus. B. M.

Shell deeply rimate, ovate-conic, often truncate, thin, smooth, shining, whitish, painted with brown broken bands and streaks; suture deep, simple; whorls 4–6, convex, enlarging regularly; aperture nearly circular; peristome double; inner edge shortly produced, yellow; outer edge broadly expanded into the plane of the aperture, white or pale rose-coloured, narrower on the side of the penultimate whorl, with the upper and left margin dilated and protracted. Operculum testaceous, of five volutions, with the nucleus scarcely excentric. Length 19, breadth 10 mill.

Cistula picta, *Humphr. MSS.*
Cyclostoma pictum, *Sow. Thes.* n. 142, p. 142, t. 28, f. 157, 158. (Not *Pfr.*)
Cyclostoma Humphreysianum, *Pfr. in Z.* f. *M.* 1846, p. 41.
Cyclostoma Humphreyanum, *Pfr. Ic.* n. 74, p. 80, t. 10, f. 9-11.

Choanopoma Humphreyanum, *Gray, Cat. Cycl.* p. 53, n. 25.
Cyclostomus Humphreyanus, *Pfr. Consp.* n. 340; *Pneum. Mon.* p. 232.

Hab. Jamaica.

70. Cyclostomus albus. B. M.

Shell perforate, ovate-conic, with the apex slightly truncate, rather smooth, alabaster-white, faintly shining; suture simple; whorls remaining 4, convex, the last as long as the two preceding ones joined; aperture perpendicular, obliquely ovate; peristome double; inner edge scarcely produced; outer edge shortly expanded, with the margins united into an indistinct angle. Operculum like that of C. elegans. Length 18, breadth $10\frac{1}{2}$ mill.

Cyclostoma album, *Sow. Thes.* n. 139, p. 141, t. 28, f. 154; *Pfr. Ic.* n. 44, p. 51, t. 6, f. 17–19.
Cyclostomus albus, *Gray, Cat. Cycl.* p. 47, n. 17; *Pfr. Consp.* n. 341; *Pneum. Mon.* p. 232.

β. Smaller, thinner, brownish, with the apex blackish.

Hab. Jamaica.

71. Cyclostomus Chevalieri.

Shell ovate-conic, brown, darker at the summit, white along the suture, around the umbilicus, and with the peritreme white; also with several spiral series of dark brown dots, of which series two on the upper whorls and three on the last are most conspicuous; smooth and shining; spire rather convex, truncated with the loss of more than two whorls; about four whorls remaining, which are quite convex, with a moderately-depressed suture; aperture nearly circular; the inner peritreme slightly developed; outer peritreme smooth and widely expanded (especially above and on the left side), well appressed to the penultimate whorl; umbilicus very small. Operculum similar to that of C. album. Mean divergence about 45°; length 0.68, greatest breadth 0.48, least br. 0.35 inch.

Cyclostoma Chevalieri, *Adams, Contrib. to Conch.* n. 9, p. 155.
Cyclostomus Chevalieri, *Pfr. Consp.* n. 342; *Pneum. Mon.* p. 233.

Hab. Jamaica.

§ 10. *Shell not keeled, ovate-turreted, folded longitudinally. Peristome expanded, double.*

72. Cyclostomus thysanorhaphe. B. M.

Shell perforate, oblong-conic, truncate, closely sculptured with longitudinal fold-like striæ, silk-shining, whitish, marked with chestnut-coloured interrupted bands and streaks; whorls re-

maining 4, convex, increasing regularly, the last one somewhat produced with its base; suture beset with rather large white teeth; aperture nearly vertical, rounded, rather angular; peristome double; inner edge continuous, shortly prominent; outer edge bell-like expanded, white with reddish-brown rays, interrupted at the penultimate whorl, dilated above and near the umbilicus into small sinuate inflexed auriculæ. Operculum like that of C. Humphreyanum. Length 18, breadth 10 mill.

Cyclostoma thysanorhaphe, *Sow. Thes.* n. 145, p. 143, t. 28, f. 162, 163; *Pfr. Ic.* n. 75, p. 81, t. 10, f. 16–18.
Choanopoma thysanoraphe, *Gray, Cat. Cycl.* p. 53, n. 26.
Cyclostomus thysanorhaphe, *Pfr. Consp.* n. 343; *Pneum. Mon.* p. 233.

Hab. Jamaica.

73. Cyclostomus Redfieldianus.

Shell perforate, ovate-conic, thin, very closely folded longitudinally, silk-shining, whitish, with several series of brown spots, or violaceous-brownish, with single series of darker dots; spire conic, shortly truncate, blackish and more distinctly ribbed near the summit; suture deep, fringed with irregularly distant white knots; whorls remaining $3\frac{1}{2}$, convex, enlarging rapidly, last rounded; aperture perpendicular, rather circular; peristome double; inner edge shortly produced; outer edge expanded angularly, indented on the penultimate whorl, dilated above into an excavated auricula, and on the left side into a rather broad fringed wing. Operculum like that of C. thysanorhaphe. Length 17, breadth 10 mill.

Cyclostoma Redfieldianum, *Adams, Contrib. to Conch.* p. 10; *Pfr. Ic.* n. 263, t. 37, f. 7, 8.
Cyclostomus Redfieldianus, *Pfr. Consp.* n. 344; *Pneum. Mon.* p. 234.

β. Spire scarcely truncate, with six whorls, the last with sharp rib-like striæ; inner peristome expanded, affixed; length 17, breadth 9 mill.

Hab. Jamaica.

74. Cyclostomus Jayanus.

Shell deeply rimate, ovate-conic, rather solid, closely folded longitudinally, somewhat shining, whitish, marked with oblique broad angular brownish stripes or interrupted bands; spire elongate-conic, scarcely or not truncated; suture furnished with minute teeth on the upper whorls, rather simple on the following ones; whorls $4\frac{1}{2}$–6, convex, last rounded, with its base somewhat produced beyond the axis; aperture scarcely oblique, rather circular, fulvous and shining within; peristome double, red, white

or brownish; inner edge continuous, broadly expanded, appressed; outer edge broader, expanded horizontally, sinuate and angulated above, shortly interrupted on the penultimate whorl. Operculum like that of C. thysanorhaphe. Length 20, breadth 11 mill.

Cyclostoma solidum, *Adams, Contrib. to Conch.* p. 7. (Not *Menke.*)
Cyclostoma Jayanum. *Adams, Contrib. to Conch.* n. 4, p. 50; *Pfr. Ic.* n. 310, t. 40, f. 32, 33.
Cyclostoma histrio, *Pfr. in Proc. Zool. Soc.* 1851. (*Jul.*)
Cyclostomus Jayanus, *Pfr. Consp.* n. 345; *Pneum. Mon.* p. 235.

Hab. Jamaica.

75. Cyclostomus Banksianus.

Shell shortly rimate and perforated, ovate-conic, rather thin, pale fuscous, with orange-coloured stripes, or blackish-violaceous, obsoletely girdled with interrupted reddish-brown lines, very closely sculptured with subtle longitudinal folds, which are undulated sometimes, and some of which, at rather regular distances, are stronger; spire conic, subtruncate; suture fringed; whorls remaining $3\frac{1}{2}$, convex, the last one rounded, orange-coloured anteriorly, grooved spirally round the very narrow umbilicus; aperture perpendicular, circular, blood-red within; peristome blood-red, double; inner edge slightly expanded; outer edge shortly expanded, slightly indented on the penultimate whorl, somewhat auriculated above. Operculum like that of C. costulatus, *Zgl.* Length 15, breadth $9\frac{1}{2}$ mill.

Cyclostoma Banksianum, *Sow. Thes.* n. 148, p. 144, t. 29, f. 194; *Pfr. Ic.* n. 165, p. 154, t. 21, f. 7, 8, t. 44, f. 17, 18.
Cyclostoma hyacinthum, *Adams, Contrib. to Conch.* p. 9.
Choanopoma Banksianum, *Gray, Cat. Cycl.* p. 52, n. 19.
Cyclostomus Banksianus, *Pfr. Consp.* n. 346; *Pneum. Mon.* p. 235.

Hab. Jamaica, Manchester Mountains.

76. Cyclostomus Yallahensis.

This shell resembles C. Banksianum, but it is smaller and more slender; the colour is blueish-brown, and does not change by age or exposure into orange near the aperture; the striæ are coarser; the oblique indentations are often obsolete. The operculum is similar to that of C. Banksianum. Mean divergence about 46°; length 0.48, greatest breadth 0.32, least br. 0.27 inch.

Cyclostoma Yallahense, *Adams, Contrib. to Conch.* n. 9, p. 156.

Cyclostomus Banksianus var.? *Pfr. Consp.* p. 37.
Cyclostomus Yallahensis, *Pfr. Pneum. Mon.* p. 236.

Hab. Jamaica, on the east end of the island from Yallahs' Hill eastward.

77. Cyclostomus Bronni. B. M.

Shell rimate-subperforate, ovate-turreted, truncate, rather solid, sculptured with very close rib-like longitudinal striæ, silk-shining, pale fuscous, painted sometimes with several obsolete series of reddish-brown dots; suture crenated regularly; whorls remaining 3–3½, convex, enlarging rapidly, the last one closely spirally grooved beneath; aperture perpendicular, nearly circular; peristome double; inner edge continuous; outer edge shortly expanded, with the right margin dilated, near the penultimate whorl, into a short tongue-shaped appendix. Operculum similar to that of C. elegans, grooved on its edge. Length 16, breadth 10 mill.

Cyclostoma Bronnii, *Adams, in Proc. Bost. Soc.* 1845, p. 11; *Pfr. in Z.* f. *M.* 1849, p. 46; *Ic.* n. 43, p. 50, t. 6, f. 24–26.
Cyclostoma papillare, *Féruss. Mus.*
Cyclostomus Bronni, *Gray, Cat. Cycl.* p. 47, n. 18; *Pfr. Consp.* n. 347; *Pneum. Mon.* p. 237.

β. With interrupted narrow fuscous bands.

Cyclostoma fusco-lineatum, *Adams, in Proc. Bost. Soc.* 1845, p. 11.
Cyclostoma Bronni var., *Adams, Catal. Jam.*

Hab. Jamaica.

78. Cyclostomus lamellosus.

Shell ovate-conic, rather short, with several inequidistant, unequal, more or less interrupted spiral lines of brown, of which four or five appear on the penultimate whorl; with rather closely-set, sharp, elevated, transverse lamellæ, which are more prominent at the sutures; without spiral striæ, except a few ridges in the umbilicus; apex truncate, with the loss of two or three whorls; spire with the outlines quite convex; about 3½ whorls remaining, very convex, with a rather deep suture; aperture orbicular, with two peritremes, of which the outer one is narrow, auriculated above; reflected nearly into the plane of the aperture; the inner peritreme is rather stout, well produced, a little reflected. The operculum has a spiral lamella, which has about 4½ whorls, and is but little elevated and much produced laterally. Mean divergence about 50°; length, after truncation, 0.49, greatest breadth 0.4, least br. 0.34 inch.

Cyclostoma lamellosum, *Adams, in Ann. Lyc. New York.* v. n. 2, p. 54; et *Contrib. to Conch.* n. 8, p. 138.
Cyclostomus lamellosus, *Pfr. Consp.* n. 348; *Pneum. Mon.* p. 238.

Hab. Jamaica.

79. Cyclostomus rugulosus. B. M.

Shell subperforate, cylindrically turreted, truncated, thin, wrinkled with close-set longitudinal ribs, diaphanous, grayish-white; whorls remaining 4, convex, increasing slowly, minutely toothed along the slightly-channelled suture, the last one somewhat detached, joined to the penultimate whorl behind the aperture by a broad dentiform callus, obsoletely spirally grooved beneath; aperture perpendicular, obliquely ovate; peristome double; inner edge straight; outer edge almost equally expanded all round. Operculum testaceous, of four volutions, the margin of which is slightly raised. Length 10–11, breadth 4–5 mill.

Cyclostoma rugulosum, *Pfr. in Wiegm. Arch.* 1839, i. p. 356; *Ic.* n. 120, p. 117, t. 14, f. 9–11, t. 38, f. 11, 12.
Cyclostoma clathratum, *Gould, in Bost. Journ.* iv. 1, 1842.
Cistula rugulosa, *Gray, Cat. Cycl.* p. 59, n. 10.
Cyclostomus rugulosus, *Pfr. Consp.* n. 349; *Pneum. Mon.* p. 238.

Hab. Cuba.

80. Cyclostomus Wilkinsonii.

Shell subperforate, cylindrically turreted, truncated, thin, closely sculptured with longitudinal ribs, diaphanous, whitish, with obsolete series of reddish-brown dots; suture lamellarly toothed; whorls remaining 4, convex, increasing slowly, the last one detached, descending, keeled above, grooved spirally on the side of the columella; aperture rather perpendicular, ovate; peristome double; inner edge scarcely prominent; outer edge shortly reflected all round. Operculum similar to that of C. rugosus. Length 8, breadth $3\frac{1}{2}$ mill.

Cyclostoma Wilkinsonii, *Adams, Contrib. to Conch.* p. 6; *Pfr. Ic.* n. 376, t. 46, f. 17–19.
Cyclostomus Wilkinsoni, *Adams, Catal. Jam. Apr.* 1851.
Cyclostomus Wilkinsoni, *Pfr. Consp.* n. 350; *Pneum. Mon.* p. 239.

β. Smaller; uniformly white, with $3\frac{1}{2}$ whorls, the last of which is less detached; length 6, breadth 3 mill.

Cyclostoma modestum, *Adams, Contrib. to Conch.* p. 6.

Hab. Jamaica.

§ 11. *Shell not keeled, ovate-turreted, decussated; peristome expanded, double.*

81. Cyclostomus Rangelinus.

Shell perforate, conically turreted, shortly truncated, rather thin, sculptured with raised spiral and more crowded longitudinal lines, which are more obsolete on the last whorl, diaphanous, yellowish-horn-coloured, painted with very numerous chestnut-coloured spiral lines, which are sometimes joined into bands, or altogether yellowish or wine-coloured; suture furnished with strong, white, fasciculate teeth; whorls remaining 5, convex, last rounded; aperture rather perpendicular, ovate-roundish; peristome double; inner edge continuous, shortly produced and expanded; outer edge narrowly reflected, slightly auriculate above, indented below the penultimate whorl. Operculum like that of C. costulatus, *Zgl.* Length 22½, breadth 12 mill.

Cyclostoma Rangelinum, *Poey, Memorias Sobra la Hist. Nat. de la Isla de Cuba*, i. t. 8, f. 13–19; ii. p. 98–106; *Pfr. Ic.* 388, t. 47, f. 17–19.

Cyclostomus Rangelinus, *Pfr. Consp.* n. 350a.; *Pneum. Mon.* p. 240.

Hab. Sierra de Rangel, Cuba (Poey).

82. Cyclostomus retrorsus.

Shell subperforate, ovate-oblong, thin, truncate, closely and coarsely trellised by spiral ridges and crowded longitudinal ribs, not shining, pale horn-coloured, with irregular dots and streaks of reddish-brown; suture slightly channelled, toothed; whorls remaining 4, ventricose, the last one not detached, rounded, furnished round the perforation with four or five stronger ridges; aperture perpendicular, circular; peristome multiplied, concentrically striated, broadly vaulted and reflected, so as to form a canal behind it, indented on the penultimate whorl, angulated above. Operculum (passing to Choanopoma) testaceous, flat, its whorls forming a channel. Length 16–17, breadth 9 mill.

Cyclostoma retrorsum, *Adams, Contrib. to Conch.* n. 6, p. 91; *Pfr. Ic.* n. 258, t. 36, f. 15–16.

Cyclostomus retrorsus, *Pfr. Consp.* n. 351; *Pneum. Mon.* p. 240.

Hab. Jamaica.

83. Cyclostomus salebrosus.

Shell rimate, subperforate, ovate-turreted, truncated, rather solid, rather coarsely trellised by close-set longitudinal ribs, and slight spiral ridges, not shining, whitish-gray; suture irregu-

larly fringed; whorls remaining 3–3½, convex, last rounded, descending and detached anteriorly, keeled above; aperture nearly perpendicular, rather circular; peristome double; inner edge prominent, slightly expanded; outer edge angularly produced above, scarcely reflected on the right, dilated and expanded on the columellar side. Operculum testaceous, rather convex in the middle, with the edge deeply grooved, with four volutions, which are deeply furrowed obliquely. Length 16, breadth 10 mill.

Cyclostoma salebrosum, *Morelet, Testac. Noviss.* p. 23, n. 59; *Pfr. Ic.* n. 260, t. 36, f. 19–21.

Cyclostomus salebrosus, *Pfr. Consp.* n. 352; *Pneum. Mon.* p. 241.

Hab. Cuba, the Mount Guajaibon.

84. Cyclostomus? sulculosus.

Shell scarcely rimate, oblong, truncated, solid, not shining, fulvous-flesh-coloured, sculptured with raised spiral ridges and very crowded longitudinal lines, which are continued over the ridges, and the fourth or fifth of which is stronger; spire tapering, gradually truncated; suture slightly channelled, furnished with irregular and distant callous teeth; whorls remaining 4, moderately convex, the last one somewhat detached anteriorly; aperture perpendicular, ovate, brownish within; peristome whitish, double; inner edge slightly expanded and appressed; outer edge shortly expanded, produced above into a triangular beak, very narrow on the side of the penultimate whorl, with the left margin dilated. Operculum? Length 14, breadth 7 mill.

Cyclostoma sulculosum, *Ferussac, Mus.*; *Pfr. Ic.* n. 318, t. 41, f. 15–17.

Cyclostomus? sulculosus, *Pfr. Consp.* n. 353; *Pneum. Mon.* p. 242.

β. Smaller; pale, with the suture deeper.

Cyclostoma suturale, *Féruss. Mus.; Pfr. Ic.* t. 41, f. 21, 23.

Hab. Guadeloupe.

85. Cyclostomus Dominicensis.

Shell imperforate, oblong, truncated, rather solid, closely trellised by various spiral and more crowded longitudinal lines, scarcely shining, pale fulvid; suture toothed regularly; whorls remaining 4, moderately convex, the last one shortly detached anteriorly, keeled above; aperture perpendicular, obliquely and angularly ovate; peristome double; inner edge shortly produced; outer edge white, narrowly expanded, dilated at the upper angle and at the base. Operculum (passing to Choanopoma) testaceous, of four volutions, the margin of which is somewhat detached. Length 10, breadth 4⅔ mill.

Cyclostoma Dominicense, *Pfr. in Z.* f. *M.* 1850, p. 79; *Ic.* n. 277, t. 38, f. 9–10.
Cyclostomus Dominicensis, *Pfr. Consp.* n. 354; *Pneum. Mon.* p. 242.

Hab. Haiti (Mr. Sallé).

XXII. TUDORA.

Operculum ovate, shelly, flat, of few whorls, which enlarge rapidly and are arcuately grooved or deeply striated obliquely, with the nucleus very eccentrical. Shell ovate-oblong or turreted; aperture angularly ovate; peristome expanded, simple or double.

Tudora, *Gray, Catal. Cycloph.* p. 48; *Pfr. in* Z. f. *M.* 1851, p. 166; *Consp.* p. 38; *Pneum. Mon.* p. 243.
Cistula, sp., *Gray.*
Cyclostoma sp., *Auctt.*

A. Peristome simple . . . . § 1. *n.* 1–11.
B. Peristome indistinctly doubled . § 2. „ 12–14.
C. Peristome double . . . . § 3. „ 15–25.

§ 1. *Peristome simple.*

1. Tudora megachila. B. M.

Shell perforated, ovate-conic, truncated, sculptured with rather distant spiral ridges, crossed by raised longitudinal lines, marbled with brown, reddish, and orange; whorls remaining 5, convex, last somewhat ascending anteriorly; aperture nearly perpendicular, its base being slightly produced beyond the axis, ovate, saffron-coloured within; peristome simple, white, almost continuous, angularly dilated above, with the right margin expanded; left margin much dilated, expanded, more or less covering the narrow perforation. Operculum arcuately striated. Length 18, breadth 9 mill.

Cyclostoma megacheilos, *Pot. & Mich. Gal. Douai*, i. p. 237, t. 24, f. 9–10.
Cyclostoma simile, *Gray, MSS. Mus. Br.; Sow. Thes.* n. 37, p. 103, t. 24, f. 48, 49.
Cyclostoma megachilum, *Pfr. Ic.* n. 62, p. 66, t. 9, f. 18, 19.
Cyclostoma roridum, *Parr. in Sched.*
Cyclostoma Proteus, *Beck, MSS.*
Tudora similis, *Gray, Cat. Cycl.* p. 48, n. 1.
Tudora megachila, *Pfr. Consp.* n. 355; *Pneum. Mon.* p. 243.

β. Larger; with the aperture whitish within.

Cyclostoma cancellatum, *Menke, MSS.* (*Pfr. Ic.* t. 9, f. 15–17.)

γ. With the spiral ridges very distant, linear.

δ. With the spiral ridges altogether wanting.

Hab. The Island of Curaçao.

2. TUDORA COSTATA.

Shell subperforate, oblong-turreted, truncate, sculptured with strong longitudinal folds or ribs, very obsoletely crossed by raised spiral lines, flesh-coloured, blueish towards the summit; whorls remaining 6, convex, the last one ascending anteriorly, closely grooved spirally and deeply at its base; aperture ovate, produced beneath, orange-coloured within; peristome simple, slightly expanded, with the upper margin dilated and vaulted; columellar margin narrow and appressed above, almost covering the perforation, dilated and somewhat auriculated at its lower part. Operculum? Length 16, breadth $7\frac{2}{3}$ mill.

Cyclostoma costatum, *Menke, MSS.; Pfr. in Z.* f. *M.* 1846, p. 47; *Ic.* n. 59, p. 64, t. 9, f. 9, 10.
Cistula? costata, *Gray, Cat. Cycl.* p. 58, n. 4.
Tudora costata, *Pfr. Consp.* n. 356; *Pneum. Mon.* p. 244.

Locality unknown.

3. TUDORA VERSICOLOR. B. M.

Shell narrowly rimate, oblong-turreted, truncate, shining, pale rose-coloured, girdled with orange-red lines; whorls remaining 5, moderately convex, the upper ones closely ribbed, the middle ones smooth, the last forming $\frac{2}{3}$ of the total length, concentrically grooved beneath; aperture perpendicular, ovate-circular, saffron-coloured within; peristome simple, white, with the right margin nearly straight; columellar margin shortly reflexed. Operculum? Length $17\frac{1}{2}$, breadth $8\frac{1}{2}$ mill.

Turbo aurantius, *Gray, in Wood, Ind. Suppl.* t. 6, f. 23. (Not *Schum.*)
Cyclostoma aurantium, *Gray, in Wood Suppl.* p. 36.
Cyclostoma aurantiacum, *Sow. Thes.* n. 36, p. 103, t. 24. f. 46, 47.
Cyclostoma versicolor, *Pfr. in Z.* f. *M.* 1846, p. 33; *Ic.* n. 60, p. 65, t. 9, f. 13, 14.
Cistula versicolor, *Gray, Cat. Cycl.* p. 58, n. 3? (Jamaica.)
Tudora versicolor, *Pfr. Consp.* n. 357; *Pneum. Mon.* p. 244.

β. Shell more solid, decussated closely and obsoletely, rose-coloured, varied with pink.

Cyclostoma carneum, *Menke, in Pfr. Ic.* n. 61, p. 65, t. 9, f. 11, 12.

Locality unknown.

This species and the preceding appear to be most allied to Tudora megachila.

4. Tudora ferruginea. B. M.

Shell subrimate, oblong-turreted, rather thin, closely girdled spirally and unequally with thread-like lines, somewhat decussated in the interstices, yellowish, often striped or marbled with brown; spire turreted, with the apex smooth, blunt; suture slightly channelled; whorls 5½–6, convex, the last one forming scarcely more than ⅓ of the total length; aperture perpendicular, roundish-ovate, fulvous within; peristome continuous, simple, scarcely a little expanded, with the margins united into an indistinct angle. Operculum gray, of three whorls, coarsely striated externally. Length 18½, breadth 8¼ mill.

Cyclostoma ferruginea, *Lam. Hist.* vi. p. 147, n. 17, *Ed. Désh.* viii. p. 358, n. 16; *Deless. Recueil.* t. 29, f. 4; *Chenu, Ill. Conch.* t. 1, f. 4.

Cyclostoma ferrugineum, *Michaud, Cat. Alg.* p. 11, t. 1, f. 23; *Rossm. Ic.* vi. p. 49, t. 28, f. 396; *Pot. & Mich. Gal. Douai*, i. p. 236, t. 24, f. 7, 8; *Sow. Conch. Man.* f. 303; *Thes.* n. 42, p. 105, t. 24, f. 55–57; *Pfr. Ic.* n. 65, p. 70, t. 9, f. 27–29; *Graell's Catal. m. of terr. Esp.* p. 8.

Cyclostoma histriatus, *Brown*, 1827, *Ill. Conch. Gr. Brit. and Irel.* t. 41, f. 29, 30.

Cyclostoma productum, *Turt. Man.* p. 94, f. 76, *Ed. Gray*, t. 7, f. 76.

Cyclostoma fulvum, *Gray, in Wood Suppl.* p. 36.

Turbo fulvus, *Wood, Ind. Suppl.* t. 6, f. 9.

Cyclostomus ferrugineus, *Gray, Cat. Cycl.* p. 47, n. 15.

Tudora ferruginea, *Pfr. Consp.* n. 358; *Pneum. Mon.* p. 245.

Hab. Spain, Minorca, and Algiers.

5. Tudora fecunda.

Shell subperforate, oblong-conic, rather thin, very crowdedly sculptured with longitudinal plaits, not shining, fulvous-whitish, painted with interrupted reddish-brown spiral lines and often with a broader basal band; spire elongate, shortly truncate; whorls remaining 5–6, scarcely convex, increasing regularly; aperture rather oblique, ovate, rather angulated, sinuous above; peristome simple, shortly expanded, produced above into an auricula; right margin somewhat compressed, nearly straight. Operculum grayish-white, grooved obliquely. Length 18, breadth 8½ mill.

Cyclostoma fecundum, *Adams, Contrib. to Conch.* n. 1, p. 11; *Pfr. Ic.* n. 377, t. 46, f. 20, 21.

Tudora fecunda, *Pfr. Consp.* n. 359; *Pneum. Mon.* p. 246.

β. Smaller, girdled with more distinct narrow reddish-brown bands. (*Pfr. Ic.* t. 46, f. 22, 23.)

Hab. Jamaica.

6. Tudora armata.

Shell rimate, subperforate, elongate-conic, rather solid, silk-shining, grayish-fuscous, often spotted with reddish-brown, sculptured with longitudinal folds, which are crowded, thread-like, and collected on the suture in prominent bundles of about eight; spire elongate, truncate; whorls remaining 5, moderately convex, increasing regularly, the last one shortly detached anteriorly, indistinctly spirally grooved beneath; aperture perpendicular, rather obliquely ovate; peristome simple, continuous, scarcely expanded, angulated above. Operculum like that of T. fecunda. Length 15, breadth $7\frac{1}{2}$ mill.

Cyclostoma armatum, *Adams, Contrib. to Conch.* n. 1, p. 10; *Pfr. Ic.* n. 378, t. 46, f. 24–26.
Tudora armata, *Pfr. Consp.* n. 360; *Pneum. Mon.* p. 247.

Hab. Jamaica.

7. Tudora mutica.

Shell subperforate, turreted, rather solid, sculptured with very crowded longitudinal fold-like striæ, slightly shining, grayish-fuscous; spire elongate, truncate; suture rather simple; whorls remaining 5, moderately convex, increasing slowly, the last shortly detached anteriorly, keeled above; aperture slightly receding from the axis, ovate; peristome simple, slightly expanded, angulated above. Operculum like that of the preceding. Length 14, breadth $5\frac{1}{2}$ mill.

Cyclostoma muticum, *Adams, Contrib. to Conch.* n. 1, p. 5.
Tudora mutica, *Pfr. Consp.* n. 361; *Pneum. Mon.* p. 247.

Hab. Jamaica.

8. Tudora ? maritima.

Shell rimate, oblong turreted, solid, closely folded longitudinally, scarcely shining, flesh-coloured, often indistinctly girdled with red lines; spire elongate, shortly truncate; suture crowdedly and minutely toothed; whorls remaining $5\frac{1}{2}$, little convex, the last one slightly grooved spirally beneath; aperture perpendicular, obliquely subovate; peristome simple, shortly expanded, with the margins joined angularly on the body of the penultimate whorl, columellar margin narrow, appressed. Operculum? Length 13, breadth $5\frac{1}{2}$ mill.

Cyclostoma maritimum, *Adams in Proc. Bost. Soc.* 1848, p. 102; *Pfr. Ic.* n. 275, t. 38, f. 5, 6.
Cyclostoma Tetrarum, *Rang, in Mus. Cuming.*
Tudora ? maritima, *Pfr. Consp.* n. 362; *Pneum. Mon.* p. 247.

β. Larger, pale, with the longitudinal folds stronger, more distant; length $15\frac{1}{2}$, breadth $6\frac{2}{3}$ mill. (*Pfr. Ic.* t. 46, f. 38.)

Cyclostoma Aurora, *Adams, Contrib. to Conch.* n. 1, p. 11.

Hab. Jamaica.

9. Tudora ? Tappaniana.

Shell elongate-conoid, brownish orange, with a paler band below the periphery of the last whorl, with the columella brown; with crowded strong transverse striæ, and less strongly impressed spiral striæ; spire with the outlines moderately convex, truncated; remaining whorls 4, slightly convex, with a moderately-impressed suture; aperture ovate, acute above, with the margin not reflected but sharp; umbilicus indistinct. Mean divergence about 33°; length 0.41; greatest breadth 0.2; least br. 0.18 inch.

Cyclostoma Tappanianum, *Adams, Contrib. to Conch.* n. 9, p. 157.
Tudora ? Tappaniana, *Pfr. Consp.* n. 363; *Pneum. Mon.* p. 248.

Hab. Jamaica.

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10. Tudora ? quaternata. B. M.

Shell rimate perforate, ovate-oblong, truncate, sculptured with very subtle rib-like longitudinal striæ, slightly crossed with transverse lines, whitish; suture bordered with white, toothed very crowdedly and minutely; whorls remaining 4, moderately convex, increasing slowly, the last one shortly detached anteriorly, keeled above, more distinctly spirally grooved near the perforation; aperture obliquely elliptical, pale fulvous within; peristome continuous, straight, slightly thickened, with the margins joined angularly; columellar margin rather dilated. Operculum ? Length 19, breadth 10 mill.

Cyclostoma quaternata, *Lam. Hist.* vi. p. 147, n. 16; *Ed. Désh.* viii. p. 358, n. 15; *Delessert, Recueil.* t. 29, f. 3; *Chenu, Ill. Conch.* t. 1, f. 3.
Cyclostoma quaternatum, *Sow. Thes.* n. 165, p. 149, t. 28, f. 178, 179; *Pfr. Ic.* n. 76, p. 81, t. 10, f. 12, 13.
Cistula quaternata, *Gray, Cat. Cycl.* p. 59, n. 12.
Tudora ? quaternata, *Pfr. Consp.* n. 364; *Pneum. Mon.* p. 242.

Hab. Africa ? (Sowerby).

11. Tudora pupæformis.

Shell perforate, ovate-oblong, truncate, rather thin, reddish-brown flesh-coloured, minutely trellised by spiral raised lines and longitudinal lines passing over them; suture denticulated crowdedly and sharply; whorls remaining 4, scarcely convex, the last

one distinctly spirally grooved beneath, detached anteriorly, sharply keeled above; aperture rather oblique, ovate; peristome continuous, shortly expanded, with the margins united into an acutely-prominent angle. Operculum slightly grooved obliquely. Length 13½, breadth 7 mill.

Cyclostoma pupiforme, *Sow. Thes.* n. 34, p. 102, t. 24, f. 43, 44; *Pfr. Ic.* n. 124, p. 121, t. 14, f. 15, 16.
Cistula pupiformis, *Gray, Cat. Cycl.* p. 59, n. 13.
Tudora pupæformis, *Pfr. Consp.* n. 365; *Pneum. Mon.* p. 249.

Hab. Haiti?

This might be considered as a variety of the preceding species.

§ 2. *Peristome indistinctly doubled.*

12. Tudora columna. B. M.

Shell subrimate, oblong-conic, rather thin, crowdedly folded longitudinally, whitish-yellow, with three series of roundish chestnut-coloured spots; suture densely denticulated; whorls remaining 5–6, moderately convex, the last painted with five interrupted bands; aperture perpendicular, obliquely elliptical, receding on the side of the columella; peristome indistinctly double; inner edge continuous, incumbent; outer edge dilated, expanded, broadly cut out on the penultimate whorl, with a hollow auricula above and on the left side. Operculum typical. Length 20, breadth 8 mill.

Turbo columna, *Gray, in Wood, Ind. Suppl.* t. 6, f. 21.
Cyclostoma columna, *Gray, in Wood Suppl.* p. 36; *Désh. in Lam. Hist.* viii. p. 372, n. 41; *Pfr. Ic.* n. 39, p. 47, t. 6, f. 13, 14, t. 46, f. 27, 28.
Cyclostoma quinquefasciatum, *Adams, Contrib. to Conch.* n. 1, p. 12.
Cistula columna, *Gray, Cat. Cycl.* p. 57, n. 2.
Tudora columna, *Pfr. Consp.* n. 366; *Pneum. Mon.* p. 250.

Hab. Jamaica.

13. Tudora? Adamsi. B. M.

Shell perforate, oblong-conic, truncate, thin, rather diaphanous, very closely folded longitudinally, pale horn-coloured, irregularly aspersed with and often marked with a single basal band of chestnut-colour; suture crowdedly crenulate; whorls remaining 5–6, moderately convex, increasing rapidly; aperture perpendicular, obliquely ovate, of the same colour within; peristome indistinctly double; inner edge sometimes wanting; outer edge shortly affixed, expanded, angulated above, very narrow below the perforation. Length 15, breadth 7 mill.

Cyclostoma crenulatum, *Gray, MSS. in Sow. Thes.* n. 163, p. 148, t. 28, f. 174, 175.
Cyclostoma Adamsi, *Pfr. in Z.* f. *M.* 1846, p. 43; *Ic.* n. 40, p. 48, t. 6, f. 20, 21, t. 46, f. 29, 30.
Cistula columna var., *Gray, Cat. Cycl.* p. 57.
Tudora ? Adamsi, *Pfr. Consp.* n. 367; *Pneum. Mon.* p. 251.
Hab. Jamaica.

This species differs from C. columna by the shape of the mouth, the left margin of which is not receding, by the obsolete inner peristome, and the outer being scarcely dilated, not auriculated above and on the left side.

14. Tudora ? Chemnitzii. B. M.

Shell perforate, ovate-conic, solid, truncate, smooth, whitish, marked with a single broad or four interrupted fuscous bands; whorls remaining 4–5, convex, the last one grooved with several spiral furrows round the narrow perforation; aperture obliquely ovate; peristome indistinctly doubled; inner edge thin, not prominent, outer edge shortly expanded, continuous, with the margins joined angularly, with a folded auricula above and on the left side. Operculum (*fide Sow.*) shelly, with few striated whorls. Length 14, breadth 8 mill.

Turbo Chemnitzii, *Gray, in Wood, Ind. Suppl.* t. 6, f. 6.
Cyclostoma Chemnitzii, *Gray, in Wood Suppl.* p. 36; *Sow. Thes.* n. 140, p. 141, t. 28, f. 155, 156; *Pfr. Ic.* n. 88, p. 92, t. 12, f. 32, 33.
Choanopoma interruptum var. min., *Gray, Cat. Cycl.* p. 54.
Tudora ? Chemnitzii, *Pfr. Consp.* n. 368; *Pneum. Mon.* p. 251.
Hab. South-Africa (Sowerby).

§ 3. *Peristome double.*

15. Tudora nobilis.

Shell perforate, ovate-turreted, closely sculptured with longitudinal thread-like folds, little shining, brownish-violaceous; spire elongate-conic, not truncate, with the apex rather blunt; suture beset with very crowded white crenulations; whorls 7, moderately convex, the last one shortly detached anteriorly, concentrically striated beneath; aperture perpendicular, irregularly ovate, fuscous within; peristome white, double; inner edge shortly produced, slightly expanded, with the margins joined angularly; left margin slightly arcuated; outer edge shortly expanded all round. Operculum grooved deeply and obliquely. Length 32, breadth 15 mill.

Cyclostoma nobile, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 390, t. 47, f. 27, 28.
Tudora nobilis, *Pfr. Pneum. Monogr.* p. 254.
Hab. Haiti (Mr. Sallé).

16. TUDORA VIOLACEA.

Shell perforate, ovate-turreted, truncate, rather solid, sculptured with raised spiral and more crowded longitudinal striæ, forming oblong granulations, not coarse, not shining, dark violaceous; spire turreted, truncate; whorls remaining $4\frac{1}{2}$, convex, last rounded; aperture rather perpendicular, angularly ovate; peristome double; white, continuous; inner edge slightly expanded, affixed; outer edge somewhat thickened, narrowly and angularly expanded on the right side, with the columellar margin dilated into a sinuate lamina concealing, but not closing, the perforation. Operculum like that of T. fascia. Length 20, breadth 11 mill.

Cyclostoma violaceum, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 308, t. 40, f. 25–27.
Tudora violacea, *Pfr. Consp.* n. 369, p. 65; *Pneum. Mon.* p. 252.

Hab. Cuba (Poey).

17. TUDORA FASCIA. B. M.

Shell perforate, oblong-turreted, truncate, rather solid, closely and regularly trellised by longitudinal and spiral raised lines, pale fuscous, with obsolete bands; suture crenulate; whorls remaining 5, moderately convex, the last one inflated anteriorly, ascending slightly, sculptured beneath with more distant and stronger spiral striæ; aperture perpendicular, somewhat elliptical, slightly angulated above, chestnut-coloured within; peristome double; inner edge sharp, produced shortly; outer edge expanded, pale orange-coloured, with a hollow auricula above, left margin straight, reflected, forming an obtuse angle with the basal margin. Operculum striated obliquely. Length 23, breadth 11 mill.

Turbo fascia, *Gray, in Wood, Ind. Suppl.* t. 6, f. 8.
Cyclostoma fascia, *Gray, in Wood Suppl.* p. 36; *Sow. Thes.* n. 164, p. 149, t. 28, f. 176, 177; *Pfr. Ic.* n. 37, p. 45, t. 6, f. 9, 10.
Cistula fascia, *Gray, Cat. Cycl.* p. 57, n. 1.
Tudora fascia, *Pfr. Consp.* n. 370; *Pneum. Mon.* p. 253.

β. Shell more solid, smaller, more distinctly trellised.

Cyclostoma proximum, *Adams, Contrib. to Conch.* n. 1, p. 8.

Hab. Jamaica.

18. TUDORA AUGUSTÆ.

Shell subperforate, oblong-conic, truncate, solid, slightly decussated by blunt spiral lines and longitudinal striæ, which are distinct above, and become gradually more subtle, fuscous-whitish, painted with series of reddish-brown dots and one or

two bands; spire turreted, broadly truncate; suture closely crenulate; whorls remaining 4½–5, moderately convex; aperture perpendicular, obliquely ovate; peristome double; inner edge slightly expanded, white; outer edge white, yellow, or brownish-red, dilated, spreading rectangularly, indented on the penultimate whorl, with the columellar margin sinuate and reflexed, auriculated. Operculum like that of T. fascia. Length 18, breadth 8 mill.

Cyclostoma Augustæ, *Adams, Contr. to Conch.* n. 1, p. 6; *Pfr. Ic.* n. 311, t. 40, f. 34–35.
Tudora Augustæ, *Pfr. Consp.* n. 371; *Pneum. Mon.* p. 253.

β. Shell equally decussated, shining, varied with brown and whitish.

Cyclostoma nitens, *Adams, Contrib. to Conch.* n. 1, p. 8.
Cyclostoma Augustæ, *Adams, Catal. Jam.* 1851.

Hab. Jamaica.

This shell may be considered perhaps as a variety of T. fascia.

19. Tudora ? crenulosa.

Shell perforate, elongate-conic, solid, truncate, closely sculptured with longitudinal rib-like striæ, blueish-white, clouded with fuscous and very elegantly painted with reddish-brown zigzag-lines; suture little impressed, crowdedly denticulated; whorls remaining 5, little convex, the last brownish beneath; aperture perpendicular, ovate, slightly angulated above, grayish within; peristome double; inner edge expanded, appressed, red; outer edge white, dilated and spreading, angularly produced above and below the columella. Operculum ? Length 21, breadth 9½ mill.

Cyclostoma crenulosum, *Adams, Contrib. to Conch.* n. 1, p. 12.
Tudora ? crenulosa, *Pfr. Consp.* n. 372; *Pneum. Mon.* p. 255.

Hab. Jamaica.

20. Tudora ? canescens.

Shell subperforate, oblong-turreted, shortly truncate, solid, trellised regularly with longitudinal and spiral raised lines, somewhat shining, grayish-white; spire elongated; suture fringed with crowded white knots; whorls remaining 7, scarcely convex, the last one narrower at its lower part, more distinctly spirally grooved round the obsolete perforation; aperture vertical, angularly ovate, brownish-flesh-coloured within; peristome double; inner edge scarcely produced; outer edge narrowly spreading all round, angulated above, shortly affixed to the penultimate whorl. Length 20, breadth 7 mill.

Cyclostoma canescens, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 284, t. 38, f. 36, 37.

Tudora canescens, *Pfr. Consp.* n. 373, p. 75; *Pneum. Mon.* p. 255.

Locality unknown.

21. Tudora? simulans.

Shell long, ovate-conic, very pale brown or dingy white, with numerous spiral series of small dark brown spots, which are often elongate, and which are arranged in inequidistant transverse stripes; with closely set rather strong transverse raised lines and indistinct spiral striæ, moderately crenulate along the suture; apex truncate; spire with the outlines moderately curvilinear; whorls remaining 4–5, quite convex, with a well-impressed suture; aperture ovate, orbicular, with two peritremes, of which the outer one is moderately expanded and reflected nearly into the plane of the aperture; the inner one is moderately produced and reflected; umbilicus very narrow, but extending through the truncate summit. (At first sight this species appears like C. Adamsi, but is distinguished by being less elongated, by the spiral striæ, and by the double peritreme.) Mean divergence about 37°; length after truncation 0.54; greatest breadth 0.34; least br. 0.23 inch.

Cyclostoma simulans, *Adams, Contr. to Conch.* n. 8, p. 138.
Tudora? simulans, *Pfr. Consp.* n. 374; *Pneum. Mon.* p. 256.

Hab. Jamaica, Easington.

22. Tudora? ovata.

Shell oblong-ovate, truncate, thin, sculptured with close set slight longitudinal folds, silk-shining, brownish-horn-coloured or very pale horn-coloured, with regular series of reddish-brown spots; spire ovate-conic, truncate; suture slight, with irregular knotty crenulations; whorls remaining 5, moderately convex, the last one a little narrower, obsoletely and spirally grooved beneath; aperture perpendicular, roundish-ovate; peristome fuscous, double; inner edge shortly produced; outer edge dilated all round, expanded into the shape of a bell, radiatingly ribbed, angularly reflexed above, broadly affixed to the penultimate whorl and closing the perforation, with the left margin slightly auriculated, spreading. Operculum? Length 17½, breadth 8 mill.

Cyclostoma ovatum, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 306, t. 40, f. 21, 22.
Tudora? ovata, *Pfr. Consp.* n. 375, p. 65; *Pneum. Mon.* p. 256.

Hab. Cuba (Poey).

23. Tudora pupoides.

Shell pyramidal, not truncate, thin, sculptured with longitudinal slightly-waving folds, brownish-ash-gray or fulvous with rust-coloured spiral lines, diaphanous, somewhat shining; spire turreted, rather pointed; suture deep, arcuated somewhat distantly; whorls 6½, convex, last rounded; aperture perpendicular, ovate-roundish; peristome white, double; inner edge produced shortly; outer edge dilated, striated concentrically, spreading nearly into the plane of the aperture, angularly slightly reflexed above, affixed to the penultimate whorl; left margin divided into two lobes, of which the upper closes entirely the umbilicus, and the lower is half-detached, folded radiatingly. Operculum obliquely striated. Length 15½, breadth nearly 7 mill.

Cyclostoma pupoides, *Morelet, Testac. Noviss.* p. 23, n. 57; *Pfr. Ic.* n. 305, t. 40, f. 19, 20.
Tudora pupoides, *Pfr. Consp.* n. 376; *Pneum. Mon.* p. 257.

Hab. Isla de Pinos, near Cuba.

24. Tudora Moreletiana.

Shell subperforate, oblong-pupoid, rather thin, truncate, sculptured with rather distant thread-like longitudinal striæ, brownish-violaceous or pale fulvous, often with rather interrupted reddish spiral lines; suture deep, with white crenulations; whorls remaining 4–5, moderately convex, the last one detached anteriorly, keeled above; aperture perpendicular, ovate; peristome double; inner edge very short; outer edge slightly reflected, more reflected like a hook on the upper angle. Operculum with the outer volution deeply striated. Length 12½, breadth 6½ mill.

Cyclostoma disjunctum, *Morelet, Testac. Noviss.* p. 23, n. 58. (Not *Math.*, nor *Moric.*)
Cyclostoma Morelletiana, *Petit, in Journ. Conch.* 1850, i. p. 46.
Choanopoma Moreleti, *Pfr. in Z.* f. *M.* 1850, p. 88.
Cyclostoma Moreletianum, *Pfr. Ic.* n. 272, t. 37, f. 27, 28.
Tudora Moreletiana, *Pfr. Consp.* n. 377; *Pneum. Mon.* p. 257.

Hab. Isla de Pinos, near Cuba.

25. Tudora avena.

Shell subperforate, turreted, truncate, crowdedly folded longitudinally, fuscous, painted with series of reddish-brown spots; suture crenulated by the white prominent bundles of ribs; whorls remaining 5, little convex, last detached anteriorly, keeled above; aperture perpendicular, ovate; peristome double; inner edge scarcely prominent; outer edge expanded, with the margins angularly joined above, right margin broader. Operculum typical. Length 8½, breadth 3½ mill.

Cyclostoma avena, *Adams, Contr. to Conch.* n. 1, p. 6; *Pfr. Ic.* n. 380, t. 46, f. 33–35.
Tudora avena, *Pfr. Consp.* n. 378; *Pneum. Mon.* p. 258.

Hab. Jamaica.

XXIII. LEONIA.

Operculum ovate, shelly, very convex externally, with a single whorl and the nucleus situated near the columellar margin. Shell ovate-conical; aperture ovate; peristome simple, slightly reflexed.

Leonia, *Gray, Syn. Brit. Mus.* 1840, ed. 1842, p. 91; *Proc. Zool. Soc.* 1847, p. 181, n. 517; *Cat. Cycloph.* p. 34; *Pfr. in Z.* f. *M.* 1851, p. 168; *Consp.* p. 40; *Pneum. Mon.* p. 259.
Cyclostoma (sp.), *Auct.*

1. Leonia mammillaris. B. M.

Shell subperforate, ovate-elongated, rather thick, whitish or fulvous-flesh-coloured, marked often with an interrupted fuscous band along the suture; spire conic, with the apex nipple-shaped, smooth; whorls $5\frac{1}{2}$, convex, the upper ones reticulated, the last one surrounded with impressed points and short lines, which are arranged into spiral series; aperture nearly perpendicular, obliquely ovate, angulated above, white within; peristome rather thickened, white, scarcely expanded, with the margins joined by a continuous callus. Operculum typical. Length 18–22, breadth 9–$10\frac{1}{2}$ mill.

Cyclostoma mammillare, *Lam. Hist.* vi. p. 147, n. 20, *Ed. Désh.* viii. p. 359, n. 19; *Delessert, Recueil*, t. 29, f. 10; *Chenu, Ill. Conch. Livr.* 73, t. 1, f. 10.
Cyclostoma Voltzianum, *Michaud, Cat. Test. Alg.* p. 10, f. 21, 22; *Pot. & Mich. Gal. Douai*, i. p. 243, t. 24, f. 24, 25; *Rossmässl. in Wagn. Alg.* iii. p. 260, t. 12, f. 14; *Grœlls, Cat. Moll. terr. Esp.* p. 8, f. 9, 10.
Cyclostoma Volziana, *Désh. in Lam. Hist.* viii. p. 371, n. 39.
Cyclostoma Woltzianum, *Terv. Catal. Alg.* p. 63.
Cyclostoma mamillare, *Sow. Thes.* n. 35, p. 102, t. 24, f. 45.
Cyclostoma mammillare, *Pfr. Ic.* n. 126, p. 122, t. 14, f. 28, 29.
Cyclostoma lævigatum, *Sow. MSS. olim.*
Cyclostoma Velascoi, *Grœlls, MSS. olim.*
Leonia mammillaris, *Gray, Cat. Cycl.* p. 34, n. 1; *Pfr. Consp.* n. 379; *Pneum. Mon.* p. 259.

Hab. Spain and Algiers.

XXIV. CISTULA.

Operculum, ovate, thin, cartilaginous, with a thin external shelly coat, with few gradually-increasing whorls, the margin of which is usually detached; nucleus excentrical. Shell globose-conic, or ovate or oblong-turreted, usually truncate; aperture ovate; peristome simple, expanded, or double.

Cistula, *Gray, Catal. Cycloph.* p. 57 (part); *Pfr. in Z.* f. *M.* 1851, p. 169; *Consp.* p. 41; *Pneum. Mon.* p. 260.
Choanopoma (sp.), *Gray.*
Cyclostoma (sp.), *Auctorum.*

A. Globose-conic . . . . . § 1. N. 1–4.

B. Ovate or oblong-turreted.
1. Last whorl not detached.
a. Peristome simple . . . . § 2. „ 5–7.
b. Peristome double.
a. Outer edge dilated . . . § 3. „ 8–11.
β. Outer edge narrow . . . § 4. „ 12–15.
2. Last whorl detached anteriorly.
a. Peristome rather simple . . . § 5. „ 16–19.
b. Peristome distinctly double.
a. Outer edge flat . . . . § 6. „ 20–28.
β. Outer edge fringed . . . § 7. „ 29–35.

§ 1. *Shell globose-conical.*

1. Cistula ? platychila.

Shell perforate, ovate-conic, truncate, rather thin, smooth, diaphanous, glassy-white; whorls remaining 4, convex, increasing gradually, the last one grooved obsoletely and spirally beneath; aperture perpendicular, ovate; peristome double; inner edge slightly expanded, not prominent, outer edge somewhat thickened, broadly spreading angularly, with the margins angularly joined, on the penultimate whorl, by a small callus, columellar margin in the middle produced into an angle. Length 26, breadth 16 mill.

Cyclostoma latilabre, *Pfr. Ic.* n. 72, p. 78, t. 10, f. 26, 27. Not *Orbigny.*
Cyclostoma platychilum, *Pfr. MSS.*
Cistula ? platychila, *Pfr. Consp.* n. 380; *Pneum. Mon.* p. 261.

Locality unknown.

2. Cistula catenata. B. M.

Shell umbilicate, globose-turbinate, thin, sculptured with crowded, more or less raised, spiral lines, pale reddish-horn-coloured,

painted with narrow, interrupted, chestnut-coloured bands; spire conic, not truncate; whorls 5½, convex, last rounded, shortly detached anteriorly, keeled above; umbilicus narrow, open, pervious; aperture scarcely oblique, angularly ovate; peristome continuous, with the margins joined above into an angle, rather double; inner edge slightly expanded, affixed, outer edge almost equally dilated all round, spreading horizontally, slightly auriculated above. Operculum typical. Length 11, breadth 7½ mill.

Cyclostoma catenatum, *Gould, in Proc. Bost. Soc.* 1843, p. 138; *Jay, Catal.* 1850, p. 254, n. 5827.
Cyclostoma interruptum, *Gould, in Bost. Journ.* iv. p. 494.
Cyclostoma limbiferum, *Menke, MSS.; Pfr. in Z.* f. *M.* 1846, p. 45; *Ic.* n. 38, p. 46, t. 6, f. 11, 12, t. 21, f. 6.
Chondropoma ? limbiferum, *Pfr. in Z.* f. *M.* 1847, p. 109, n. 4; *Gray, Cat. Cycl.* p. 55, n. 1.
Choanopoma semiproductum, *Gray, Cat. Cycl.* p. 54, n. 29.
Cistula limbifera, *Pfr. Consp.* n. 381.
Cistula catenata, *Pfr. Pneum. Mon.* p. 261.

β. Larger, length 16, breadth 9 mill. (*Pfr. Ic.* t. 38, f. 3, 4.)

Hab. Cuba.

3. Cistula Agassizii.

Shell globose-turbinate, rather solid, silk-shining, reddish, sculptured with raised spiral ridges, which are smaller alternatingly, the stronger ones being aspersed with chestnut-coloured points; spire conic, not truncate; suture slightly channelled; whorls 6, convex, painted usually with distant white points along the suture, the last one shortly detached anteriorly, sculptured with equal ridges beneath, distinctly decussated within the middle-sized umbilicus; aperture perpendicular, ovate; peristome continuous, angulated above, shortly sinuately indented on the penultimate whorl, with the margins slightly expanded. Operculum like that of C. catenata. Length 13, breadth 7 mill.

Cyclostoma Agassizii, *Charpentier, MSS.; Pfr. Ic.* n. 274, t. 38, f. 1, 2.
Cistula Agassizii, *Pfr. Consp.* n. 382; *Pneum. Mon.* p. 262.

Hab. Cuba.

4. Cistula pleurophora.

Shell globose-turbinate, thin, sculptured with crowded longitudinal striæ and more prominent thread-like ribs, diaphanous, slightly shining, whitish-fulvous; spire turbinate, with the apex rather pointed, horny; suture denticulated by the prominent ribs; whorls 5, convex, the last one roundish, shortly detached anteriorly; umbilicus middle-sized, deep, surrounded with a keel-like angle; aperture rather perpendicular, ovate-circular;

peristome continuous, simple, straight, with the columellar margin slightly expanded. Operculum with the shelly lamina very thin, separated from the inner cartilaginous by a deep furrow. Length 12, breadth 8½ mill.

Cyclostoma pleurophorum, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 299, t. 40, f. 5, 6.

Cistula pleurophora, *Pfr. Consp.* n. 383, p. 66; *Pneum. Mon.* p. 262.

Hab. Honduras.

§ 2. *Shell ovate or oblong-turreted; last whorl not detached; peristome simple.*

5. Cistula radiosa.

Shell subimperforate, thin, ovate-oblong, truncate, decussated with blunt concentric ridges and very crowded longitudinal raised lines, not shining, diaphanous, pale fulvous, girdled with reddish-brown lines; suture simple; whorls remaining 4½, moderately convex, the last not larger than the preceding; aperture perpendicular, rather ovate, slightly angulated above; peristome simple, reflexed broadly and rectangularly, with the edge striated concentrically, marked with reddish-brown rays, indented on the penultimate whorl. Operculum like that of C. catenata. Length 15–16, breadth 8 mill.

Cyclostoma radiosum, *Morelet, Testac. Noviss.* i. p. 22, n. 55; *Pfr. Ic.* n. 267, t. 37, f. 15, 16.

Cistula radiosa, *Pfr. Consp.* n. 384; *Pneum. Mon.* p. 263.

Hab. Guatemala, the province of Peten.

6. Cistula Tamsiana.

Shell subperforate, oblong-turreted, scarcely or not truncate, rather thin, sculptured with longitudinal plaits, slightly shining, blueish-fuscous, marked with interrupted chestnut-coloured lines or concentric series of points; suture denticulated very minutely and closely; whorls 7, convex, last scarcely detached anteriorly; aperture rather perpendicular, roundish, slightly angulated; peristome simple, continuous, shortly expanded all round. Operculum fuscous. Length (when not truncate) 16, breadth 7 mill.

Cyclostoma Tamsianum, *Pfr. in Z.* f. *M.* 1850, p. 77, *Ic.* n. 268, t. 37, f. 19, 20.

Cistula Tamsiana, *Pfr. Consp.* n. 385; *Pneum. Mon.* p. 263.

Hab. Venezuela, Porto Cabello (Dr. Tams).

6*a*. Cistula Rusei.

Shell subperforate, oblong-turreted, thin, closely sculptured with equal, chordiform, longitudinal ribs, diaphanous, pale horn-

coloured, girdled sometimes with interrupted reddish-brown lines; spire elongate, with the apex rather blunt, for the most part not truncated; suture with very crowded, minute, sharp teeth; whorls 7, moderately convex, the last not detached, marked round the perforation with a few spiral ridges; aperture perpendicular, elliptically ovate, shining within; peristome continuous, simple, very narrowly expanded on all sides, produced above into an angulated auricula. Operculum typical. Length 17, breadth 7 mill.

Cistula Rüsei, *Pfr. Mon. Pneum.* p. 417, n. 430*a*.

Hab. Porto Rico (Rüse).

7. Cistula? Griffithiana.

Shell ovate-conic, much elongated, with four to six spiral frequently-interrupted lines of dark brown, on a ground of very pale reddish-brown between, and whitish on the summits of, the transverse ridges; with crowded fine transverse raised lines; anteriorly with feeble concentric striæ; spire rather long, with the outlines moderately curvilinear; apex truncate; whorls remaining 5, convex, with a well-impressed suture; aperture ovate, rather acute above; peritreme simple, moderately expanded and reflected, minutely auriculate above; umbilicus small. Mean divergence about 30°; length 0.55, greatest breadth 0.28, least br. 0.25 inch.

Cyclostoma Griffithianum, *Adams, Contrib. to Conch.* n. 6, p. 93.
Cistula? Griffithiana, *Pfr. Consp.* n. 386; *Pneum. Mon.* p. 264.

Hab. Jamaica.

§ 3. *Shell ovate, or oblong-turreted, last whorl not detached; peristome double; outer edge dilated.*

8. Cistula Gruneri.

Shell perforate, ovate-oblong, truncate, very thin, crowdedly and minutely striated spirally, decussated, under a lens, with very close longitudinal striæ, pale horn-coloured; whorls remaining 4, convex, the last one marked with an interrupted brownish band below the periphery, spotted with brown near the open perforation; suture middle, rather simple; aperture subovate; peristome double; inner edge straight, sharply prominent, outer edge broad, rather concave, interrupted on the penultimate whorl, crowdedly and radiatingly striated on both sides. Operculum typical. Length 21, breadth 11 mill.

Cyclostoma Gruneri, *Pfr. in Z.* f. *M.* 1846, p. 47; *Ic.* n. 73, p. 79, t. 10, f. 28, 29.
Cistula Gruneri, *Gray, Cat. Cycl.* p. 59, n. 11; *Pfr. Consp.* n. 387; *Pneum. Mon.* p. 264.

Hab. Honduras.

9. Cistula pallida.

Shell perforate, ovate-turreted, truncate, thin, pale horn-coloured, obsoletely painted with interrupted reddish-brown lines, minutely decussated by raised spiral and very crowded longitudinal striæ, which are sometimes irregular and rather confluent; suture deep, rather simple; whorls remaining 4–4½, convex, last rounded; aperture perpendicular, ovate-roundish; peristome double; inner edge white, prominent, slightly expanded, outer edge dilated, spreading horizontally, striated concentrically, shortly affixed to the penultimate whorl, narrower on the left side. Operculum like that of C. catenata, more distinctly striated obliquely. Length 17½, breadth 8½ mill.

Cyclostoma pallidum, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 314, t. 41, f. 3, 4.

Cistula pallida, *Pfr. Consp.* n. 388, p. 66; *Pneum. Mon.* p. 265.

β. Smaller; not truncated, with 7 whorls; length 18, breadth 8 mill. (*Pfr. Ic.* t. 41, f. 5, 6.)

Hab. Almendares, near Havana (Morelet).

10. Cistula? Küsteri.

Shell perforate, ovate-turreted, truncate, thin, regularly and granularly trellised by spiral grooves and crowded longitudinal ribs, rather coarse, scarcely shining, diaphanous, fuscous-horn-coloured, painted with indistinct, interrupted, reddish-brown lines; spire convexly turreted, truncate broadly; suture deep, simple; whorls remaining 4, convex, the last narrower, rounded; aperture rather perpendicular, nearly circular; peristome double; inner edge shortly expanded, affixed; outer edge bell-shaped, expanded, striated concentrically, concave and marked with reddish-brown rays anteriorly, angulated above, narrower on the penultimate whorl. Operculum? Length 14, breadth 7 mill.

Cyclostoma Küsteri, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 316, t. 41, f. 9, 10.

Cistula? Küsteri, *Pfr. Consp.* n. 389, p. 66; *Pneum. Mon.* p. 265.

Hab. Honduras (Mr. Dyson).

11. Cistula radula.

Shell perforate, ovate-oblong, truncate, thin, minutely and coarsely decussated by raised spiral striæ and sharp longitudinal ribs, not shining, pale horn-coloured, with narrow, interrupted, reddish-brown bands; spire tapering towards the summit, truncate broadly; suture deep, rather simple; whorls remaining 4, convex, the last one narrower, rounded; aperture perpendicular, nearly circular; peristome double; inner edge continuous, scarcely prominent; outer edge dilated, spreading horizontally,

striated concentrically, slightly indented on the penultimate whorl, with the left margin fringed and crenulate. Operculum typical, with the nucleus little excentrical. Length 14, breadth 7 mill.

Cyclostoma radula, *Pfr. in Proc. Z. S.* 1851 ; *Ic.* n. 319, t. 41, f. 13, 14.
Cistula radula, *Pfr. Consp.* n. 390, p. 67 ; *Pneum. Mon.* p. 266.

Hab. Almendares, near Havana (Morelet).

§ 4. *Shell ovate or oblong-turreted; last whorls not detached; peristome double, outer edge narrow.*

12. Cistula? sagittifera.

Shell elongate, ovate-conic, dingy-white, with numerous inequidistant dark-brown zigzag lines, with the four angles, which are directed backwards, arranged in spiral series on stripes of paler brown ; with irregular transverse spots of dark brown next below the suture ; with very crowded fine transverse ridges, which interrupt minute spiral elevated lines ; apex truncate ; spire rather long, with the outlines curvilinear ; whorls remaining 4, quite convex, with a well-impressed suture ; aperture obliquely ovate, with two peritremes, of which the outer one is moderately produced and not reflected posteriorly, but in the rest part is well produced, reflected nearly into the plane of the aperture, sinuous on the left side anteriorly ; inner peritreme thick, moderately produced, slightly reflected ; umbilicus very narrow, extending through the truncate summit. Mean divergence about 45° ; length 0.96, greatest breadth 0.63, least br. 0.55 inch.

Cyclostoma sagittiferum, *Adams, in Ann. Lyc. N. York*, v. n. 2, p. 53 ; *Contrib. to Conch.* n. 8, p. 137.
Cistula? sagittifera, *Pfr. Consp.* n. 391 ; *Pneum. Mon.* p. 266.

Hab. Jamaica, Easington (Mr. Chitty).

13. Cistula Candeana.

Shell scarcely perforate, oblong-turreted, truncate, rather thin, closely trellised by sharply-raised longitudinal and spiral striæ, fulvous, with reddish-brown stripes and interrupted bands ; suture marked with white crenulations ; whorls remaining 5, convex, increasing regularly, the last one grooved beneath with stronger spiral striæ ; aperture perpendicular, obliquely ovate, peristome white, double ; inner edge not prominent ; outer edge continuous, dilated, expanded, angulated above, a little narrower near the penultimate whorl. Operculum typical. Length 14, breadth 6 mill.

Cyclostoma Candeana, *Orbigny, Moll. Cub.* i. p. 261, t. 22, f. 15–17.
Cyclostoma Candeanum, *Sow. Thes.* n. 151, p. 145, t. 31, f. 283, 284.

Cyclostoma truncatum, *Pfr. in Z.* f. *M.* 1847, p. 105; *Ic.* n. 121, p. 118, t. 14, f. 20, 21. (Not *Wiegm.*)
Cistula truncata, *Gray*, *Cat. Cycl.* p. 58, n. 7.
Cistula Candeana, *Pfr. Consp.* n. 392; *Pneum. Mon.* p. 267.

Hab. Cuba, frequent near Matanzas.

14. Cistula? pauperata.

Shell very elongate and slender, conic; colour . . .? very coarsely striated transversely, not crenulated in the suture, spiral lines wanting; spire with nearly rectilinear outlines; apex truncate, with the loss of 3 (?) whorls; 5 whorls remaining, with a moderately-impressed suture; aperture ovate-orbicular; inner peritreme on the right side less elevated above the outer one, which is moderately expanded, concave, sharp, produced into an angle and inflected at each extremity of the right side; umbilicus very small, concealed by the lip. Mean divergence 28°; length 0.58, greatest breadth 0.26, least br. 0.2 inch.

Cyclostoma pauperatum, *Adams*, *Contrib. to Conch.* p. 13.
Cistula? pauperata, *Pfr. Consp.* n. 393; *Pneum. Mon.* p. 267.

Hab. Jamaica.

15. Cistula? bilabris. B. M.

Shell subimperforate, ovate-oblong, truncate, solid, sharply decussated by longitudinal and spiral raised lines, whitish or fulvous; whorls remaining 4–5, moderately convex, the last marked beneath with stronger spiral furrows; aperture perpendicular, obliquely ovate; peristome double; inner edge shortly prominent; outer edge thickened, spreading narrowly, angulated above, white or blackish-fuscous. Length $10\frac{1}{2}$–$13\frac{1}{2}$ mill., breadth $5\frac{3}{4}$–$6\frac{1}{2}$ mill.

Cyclostoma bilabre, *Menke*, *Moll. Nov. Holl.* p. 8, n. 18; *Pfr. Ic.* n. 45, p. 52, t. 6, f. 22, 23.
Cyclostoma rufilabrum, *Beck*, *MSS. ex Sow. Thes.* n. 45, p. 106, t. 24, f. 61; *Pot. & Mich. Gal.* i. p. 241, t. 24, f. 20, 21?
Cistula rufilabris, *Gray*, *Cat. Cycl.* p. 59, n. 9.
Cistula? bilabris, *Pfr. Consp.* n. 394; *Pneum. Mon.* p. 268.

Hab. New Holland? (Menke); St. Croix? (Beck, Sowerby).

§ 5. *Shell ovate or oblong-turreted; last whorl detached in front; peristome rather simple.*

16. Cistula? lugubris.

Shell perforate, turreted-oblong, solid, truncate, sculptured with blunt spiral ridges and rather lamellar longitudinal ribs going

across the ridges, fuscous, with a single broad violaceous-brownish band; spire scarcely tapering; suture crenated crowdedly and rather acutely with excurrent bundles of ribs; whorls remaining 5, moderately convex, the last shortly detached and descending anteriorly, compressed above, with more distant spiral ridges beneath; aperture perpendicular, obliquely ovate; peristome rather simple, continuous, with the left margin shortly expanded, otherwise spreading more broadly and slightly waving. Operculum? Length 16, breadth almost 7 mill.

Cyclostoma lugubre, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 317, t. 41, f. 11, 12.
Cistula? lugubris, *Pfr. Consp.* n. 395, p. 67; *Pneum. Mon.* p. 269.

Hab. Jamaica.

17. CISTULA? MORDAX.

Shell subperforate, oblong-pupiform, thin, truncate, sculptured with distant blunt spiral ridges and crowded longitudinal striæ going across the ridges, fuscous, painted with reddish-brown points and interrupted lines; suture indistinctly crenulate; whorls remaining 5, moderately convex, last narrower, shortly detached anteriorly; aperture perpendicular, obliquely ovate, slightly angulated above; peristome simple, very little expanded, somewhat dilated at the upper angle. Operculum? Length 15, breadth $6\frac{1}{2}$ mill.

Cyclostoma mordax, *Adams, Contrib. to Conch.* p. 12; *Pfr. Ic.* n. 379, t. 46, f. 31, 32.
Cistula? mordax, *Pfr. Consp.* n. 396; *Pneum. Monogr.* p. 269.

Hab. Jamaica.

18. CISTULA? LINEOLATA. B. M.

Shell subperforate, oblong-conic, truncate, closely sculptured with longitudinal fold-like striæ, decussated obsoletely, fulvous-whitish, painted with waving longitudinal reddish-brown lines; suture middle, crenulate rather distantly and irregularly; whorls remaining 5, moderately convex, the last detached anteriorly, keeled above, concentrically and crowdedly grooved beneath; aperture ovate; peristome continuous, shortly expanded all round, angulated above. Operculum? Length 16, breadth $7\frac{1}{2}$ mill.

Cyclostoma lineolata, *Lam. Hist.* vi. p. 147, n. 19; *Ed. Désh.* viii. p. 358, n. 18?; *Deless. Recueil*, t. 29, f. 8?; *Chenu, Ill. Conch.* t. 1, f. 8.
Cyclostoma lineolatum, *Pfr. Ic.* n. 41, p. 49, t. 6, f. 27, 28.

Cistula? lineolata, *Gray, Cat. Cycl.* p. 58, n. 5; *Pfr. Consp.* n. 397; *Mon.* p. 270.

Hab. St. Vincent, W. India.

19. Cistula Thoreyana.

Shell perforate, turreted, slightly truncate, thin, crowdedly sculptured with longitudinal plaits, diaphanous, horn-coloured whitish, painted with interrupted reddish-brown concentric lines; whorls $6\frac{1}{2}$, very convex, the last one detached, widely angulated above; aperture perpendicular, ovate, peristome rather double, continuous, with the right margin shortly expanded. Operculum typical. Length 14, breadth $6\frac{1}{2}$ mill.

Cyclostoma Thoreyanum, *Philippi, in Z.* f. *M.* 1851, p. 31; *Pfr. Ic.* n. 351, t. 43, f. 28–30.

Cistula Thoreyana, *Pfr. Consp.* n. 398; *Pneum. Mon.* p. 270.

Hab. Bolivia.

§ 6. *Shell ovate or oblong-turreted; last whorl detached in front; peristome double; outer edge flat.*

20. Cistula? rostrata.

Shell perforate, ovate-turreted, truncate, thin, horn-coloured whitish, painted with longitudinal waving fuscous lines, closely sculptured with longitudinal thread-like plaits, several of which, at irregular distances, are stronger, and the interstices minutely decussated; suture slight, denticulate; whorls remaining $4\frac{1}{2}$, somewhat convex, last shortly detached anteriorly; aperture perpendicular, angularly ovate; peristome double; inner edge continuous, slightly expanded; outer edge dilated, interrupted on the penultimate whorl, otherwise spreading horizontally, produced above into a recurved beak. Length 18, breadth $8\frac{2}{3}$ mill.

Cyclostoma rostratum, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 349, t. 43, f. 26, 27.

Cistula? rostrata, *Pfr. Consp.* n. 399, p. 72; *Pneum. Mon.* p. 271.

Locality unknown.

21. Cistula? ambigua.

Shell ovate-conoidal, obtuse, perforate, thin, pellucid, whitish, with interrupted yellow lines arranged in transverse series, with prominent longitudinal striæ; labrum with the margin reflected, much dilated. Length 7 lines.

Cyclostoma ambigua, *Lam. Hist.* vi. p. 145, n. 11; *Ed. Désh.* viii. p. 357.

Cyclostoma interrupta, *Delessert, Recueil*, t. 29, f. 2; *Chenu, Ill. Conch.* t. 1, f. 2.
Cyclostoma ambiguum, *Pfr. Ic.* n. 196, p. 178, t. 29, f. 7–9. (From *Deless.*)
Choanopoma ambiguum, *Gray, Cat. Cycl.* p. 50, n. 9.
Cistula? ambigua, *Pfr. Consp.* n. 400; *Pneum. Mon.* p. 271.

Locality unknown.

22. Cistula? rigidula.

Shell turreted, for the most part truncated, sculptured with minute lamellar ribs, coarse, horn-coloured-grayish, marked with 4–5 interrupted rufous bands; spire conic-turreted, with the apex rather smooth; whorls $7\frac{1}{2}$, convex, the last detached, more or less protracted downwards; suture deep; aperture oblong, of the same colour within; peristome double; outer edge lamellar, spreading, produced above on the right side into a concave angle. Length 12, breadth 5 mill.

Cyclostoma rigidulum, *Morelet, Testac. Noviss.* ii. p. 18, n. 126.
Cistula? rigidula, *Pfr. Mon. Pneum.* p. 418, n. 445a.

Hab. Guatemala, Vera Paz.

23. Cistula? bilabiata.

Shell scarcely perforate, turreted, rather thin, trellised with raised spiral lines and more crowded longitudinal striæ, faintly silk-shining, fuscous violaceous; spire regularly tapering, not truncate; suture minutely crenulate; whorls 6, moderately convex, last narrower, detached anteriorly; aperture perpendicular, roundish-ovate; peristome double; inner edge shortly prominent; outer edge spreading rather equally and horizontally, angularly dilated above. Operculum? Length 13, breadth 6 mill.

Cyclostoma bilabiata, *Orbigny, Moll. Cub.* i. p. 258, t. 22, f. 3, 5. (?)
Cyclostoma Dorbignyanum, *Petit, Journ. Conch.* 1850, i. p. 46.
Cyclostoma bilabiatum, *Pfr. Ic.* n. 322, t. 43, f. 31, 32.
Choanopoma? bilabiatum, *Gray, Cat. Cycl.* p. 52, n. 22.
Cistula? bilabiata, *Pfr. Consp.* n. 401; *Pneum. Mon.* p. 271.

Hab. Cuba.

24. Cistula Grateloupi.

Shell perforate, oblong, pupiform, truncate, rather thin, sculptured with crowded spiral furrows, and crowded, not interrupted, longitudinal ribs, diaphanous, somewhat shining, horn-coloured-whitish, painted with chestnut-coloured bands, which are interrupted by streaks; spire little lessened towards the summit,

broadly truncate; suture slight, crenulate, the teeth being very minute and crowded on the upper whorls, collected into blunt bundles on the lower whorls; whorls remaining 4, scarcely convex, the last one shortly detached anteriorly, rounded beneath; aperture perpendicular, ovate; peristome double; inner edge shortly expanded and affixed; outer edge spreading like a bell, marked with reddish-brown rays, raised above into the shape of a cap, then emarginated and affixed to the penultimate whorl. Operculum typical. Length 16, breadth 7 mill.

Cyclostoma Grateloupi, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 309, t. 40, f. 28–31.
Cistula Grateloupi, *Pfr. Consp.* n. 402, p. 67; *Pneum. Mon.* p. 272.

β. Smaller, with the teeth of the suture crowded, sharp; length 12, breadth 5½ mill.

Hab. Yucatan.

25. Cistula Largillierti.

Shell perforate, oblong, truncate, sculptured with crowded, sharply raised, longitudinal ribs, with the interstices decussated, under a lens, by spiral striæ, fulvous, with indistinct series of fuscous spots; suture deep, denticulate; whorls remaining 4, convex, the last one shortly detached anteriorly; aperture perpendicular, obliquely subovate; peristome double; inner edge simple, outer edge shortly expanded, with the margins angularly joined above. Operculum typical. Length 12½, breadth 6 mill.

Cyclostoma Largillierti, *Pfr. in Z.* f. *M.* 1846, p. 46; *Ic.* n. 125, p. 121, t. 14, f. 26, 27.
Choanopoma Largillierti, *Gray, Cat. Cycl.* p. 51, n. 14.
Cistula Largillierti, *Pfr. Consp.* n. 403; *Pneum. Mon.* p. 273.

Hab. Yucatan.

26. Cistula? fallax.

Shell rimate, oblong-turreted, truncate, thin, decussated with blunt spiral ridges and more crowded longitudinal lines (the eighth or tenth of which appears stronger), not coarse, scarcely shining, whitish, painted with flexuous interrupted fulvous lines; spire rather convexly turreted; suture crenulate by minute bundles of striæ; whorls remaining 4–4½, moderately convex, last rounded, painted with a fulvous band below the middle, widely detached anteriorly, scarcely spirally grooved beneath; aperture rather perpendicular, ovate; peristome white, double; inner edge slightly expanded, incumbent, outer edge narrow, rather equally spreading all round, angulated above. Length 14, breadth 6½ mill.

Cyclostoma fallax, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 369, t. 45, f. 21, 22.
Cistula? fallax, *Pfr. Consp.* n. 404, p. 68; *Pneum. Mon.* p. 273.

Locality unknown.

27. Cistula? sericina.

Shell much elongated, conic, silky, white, with four spiral series of brown dots, of which three appear on the spire; around the umbilicus is a fifth series less distinct; with crowded regular transverse obtuse fine raised lines; spire with the outlines moderately convex, truncated with the loss of two whorls; whorls remaining $4\frac{1}{2}$, quite convex, with a rather deep suture; aperture slightly detached from the penultimate whorl; inner peritreme indistinct; outer peritreme moderately expanded, except on the left side, which is not reflected; umbilicus small. Mean divergence about 38°; length 0.62, greatest breadth 0.36, least br. 0.26 inch. (*Adams.*)

Cyclostoma sericinum, *Adams, Contrib. to Conchol.* n. 9, p. 156.
Cistula? sericina, *Pfr. Consp.* n. 405; *Pneum. Mon.* p. 273.

Hab. Jamaica, New Hope, Westmoreland.

28. Cistula? Campbellii.

Shell elongate-conic; colour . . . . . ? with numerous transverse moderately-elevated lamellæ; apex acute; spire not truncated, with the outlines but little convex; whorls $6\frac{1}{2}$, quite convex, with a rather deep suture; last whorl at the end much detached from the penultimate whorl, and angular above; aperture nearly circular, with the inner peritreme moderately produced, and the outer peritreme small and expanded into the plane of the aperture; umbilicus small. Mean divergence about 40°; length 0.36, greatest breadth 0.2, least br. 0.16 inch.

Cyclostoma Campbellii, *Adams, Contrib. to Conchol.* n. 9, p. 154.
Cistula? Campbellii, *Pfr. Consp.* n. 406; *Pneum. Mon.* p. 274.

Hab. Jamaica, Westmoreland.

§ 7. *Shell ovate or oblong-turreted; last whorl detached in front; peristome double, outer edge fringed.*

29. Cistula? confusa.

Shell scarcely perforate, oblong-turreted, truncate, solid, flesh-coloured fuscous, very closely trellised with crowded spiral ridges and minute longitudinal ribs, traversing the ridges; suture crenulate with crowded white teeth; whorls 5, moderately convex, increasing regularly, last shortly detached anteriorly; aperture perpendicular, obliquely ovate, fuscous, shining

within; peristome double; inner edge light brownish, scarcely prominent, outer edge broadly expanded all round, with the margins angularly joined above, columellar margin wavingly crenulate. Operculum? Length 18, breadth 7½ mill.

Cyclostoma confusum, *Pfr. MSS.*
Cyclostoma Delatreanum, *Pfr. Ic.* n. 122, p. 119, t. 14, f. 22, 23. (Not *Orbigny.*)
Cistula? confusa, *Pfr. Consp.* n. 407; *Pneum. Mon.* p. 274.

Hab.

30. Cistula Sauliæ. B. M.

Shell perforate, oblong, rather turreted, truncate usually, thin, sculptured with crowded longitudinal fold-like striæ, whitish, with obsolete series of fuscous dots; suture slightly bordered; whorls 5 (when truncate)–8, rounded, the last cylindrical, rather detached anteriorly; aperture perpendicular, nearly circular, of the same colour and shining within; peristome double; inner edge white, scarcely prominent or affixed, outer edge shortly expanded, narrower near the penultimate whorl, dilated and white above and on the columellar side, otherwise crenulated, alternately brown and white. Operculum typical. Length 14 (when not truncate 16), breadth 7 mill.

Cyclostoma Sauliæ, *Sow. Thes.* n. 152, p. 145, t. 28, f. 189; *Pfr. Ic.* n. 80, p. 85, t. 10, f. 24, 25.
Choanopoma Sauliæ, *Gray, Cat. Cycl.* p. 51, n. 10.
Cistula Sauliæ, *Pfr. Consp.* n. 408; *Pneum. Mon.* p. 275.

Hab. Jamaica (Miss Saul).

31. Cistula? trochlearis.

Shell perforate, oblong-turreted, truncate, decussated rather regularly by thread-like spiral striæ and longitudinal ribs, not shining, pale fuscous, painted with reddish-brown dots arranged in indistinct series; spire elongated, screw-shaped, broadly truncate; suture deep, simple; whorls remaining 5, very convex, last slightly detached anteriorly; aperture perpendicular, nearly circular; peristome double; inner edge scarcely prominent, outer edge spreading horizontally, dilated above into a recurved beak, shortly interrupted on the penultimate whorl, grooved and crenulated on the left side. Operculum? Length 14, breadth 6 mill.

Cyclostoma trochlea, *Pfr. in Proc. Z. S.* 1851. (Not *Benson.*)
Cyclostoma trochleare, *Pfr. Ic.* n. 315, t. 41, f. 7, 8.
Cistula? trochlearis, *Pfr. Consp.* n. 409, p. 68; *Pneum. Mon.* p. 275.

Locality unknown.

32. Cistula Shepardiana.

Shell perforate, oblong-turreted, shortly truncate, rather thin, cinnamon-coloured, sculptured with obtusely-raised spiral lines, and very crowded slight longitudinal ribs (the fifth or seventh of which is stronger) traversing the ridges; spire regularly tapering; suture crenulated by the prominent bundles of ribs; whorls remaining 5, convex, the last one widely detached and deflected anteriorly, keeled above, rounded beneath; aperture rather perpendicular, ovate; peristome orange-coloured, double; inner edge shortly expanded, outer edge spreading angularly, waved, angularly dilated above. Operculum typical. Length 12, breadth $5\frac{1}{2}$ mill.

Cyclostoma Shepardianum, *Adams, Contrib. to Conch.* n. 6, p. 92; *Pfr. Ic.* n. 283, t. 38, f. 40–42.
Cistula Shepardiana, *Pfr. Consp.* n. 410; *Pneum. Mon.* p. 276.

β. Whitish, with series of chestnut-coloured dots; peristome white, with chestnut-coloured rays. (*Pfr. Ic.* t. 38, f. 43–45.)

Hab. Jamaica.

33. Cistula? dislocata. B. M.

Shell narrowly perforate, turreted-oblong, truncate, sculptured with crowded longitudinal plaits, whitish, painted with reddish-brown dots arranged in series; whorls remaining $4\frac{1}{2}$, convex, the last compressed and widely detached anteriorly, slightly keeled above; aperture perpendicular, ovate; peristome double; inner edge scarcely prominent, outer edge angularly reflexed, subauriculate above, with the left margin grooved and crenulated, white, spotted with brown. Operculum? Length 10, breadth $5\frac{1}{2}$ mill.

Cyclostoma dislocatum, *Baird, MSS. Mus. Brit.*
Choanopoma dislocatum, *Gray, Cat. Cycl.* p. 51, n. 11.
Cistula? dislocata, *Pfr. Consp.* n. 411; *Pneum. Mon.* p. 277.

Hab. Jamaica (Zincke).

34. Cistula scabrosa. B. M.

Shell perforate, oblong-turreted, truncate, cinnamon-coloured, opaque, sculptured with blunt spiral ridges, which are not continuous, and very crowded longitudinal plaits, which are collected into bundles of 4–7; whorls remaining $4\frac{1}{2}$–5, convex, the last shortly detached anteriorly; suture crenated by the fascicled upper ends of the ribs; aperture rather perpendicular, ovate; peristome brick-coloured, double; inner edge slightly expanded, outer edge spreading, angulated above, elegantly crenulated on the lower and left margin. Operculum typical. Length 12, breadth $5\frac{1}{2}$ mill.

Cistula scabrosa, *Humphr. MSS. fide Sow.; Pfr. Consp.* n. 412; *Pneum. Mon.* p. 277.
Cyclostoma rugulosum, *Sow. Thes.* n. 155, p. 146, t. 28, f. 166, 167. (Not *Pfr.* nor *Sow. in Proc.* 1843.)
Choanopoma scabrosum, *Gray, Cat. Cycl.* p. 51, n. 12.

Hab. Providence Island (Sowerby), Jamaica (Gray).

35. Cistula cinclidodes.

Shell subimperforate, ovate-oblong, truncate, solid, sculptured with raised spiral and somewhat more crowded longitudinal lines, forming knots at their points of junction, opaque, fulvous or grayish-white, with a few interrupted reddish-brown lines; suture crenated, with the teeth fascicled; whorls remaining 5, moderately convex, last shortly detached anteriorly, more distinctly spirally grooved beneath; aperture scarcely oblique, angularly ovate; peristome white, double; inner edge produced, outer edge spreading very narrowly, waved, angularly produced above. Operculum typical. Length 11, breadth 5 mill.

Cyclostoma cinclidodes, *Pfr. Proc. Z. S.* 1852; *Ic.* n. 394, t. 47, f. 25, 26.
Cistula cinclidodes, *Pfr. Pneum. Mon.* p. 277.

Hab. Haiti (Sallé).

XXV. CHONDROPOMA.

Operculum ovate, subcartilaginous, flat; whorls few, rapidly increasing, with the nucleus very excentric. Shell oblong-turreted, often truncated, sometimes globose-turbinated; aperture ovate; peristome simple or more or less distinctly doubled, nearly straight, expanded or broadly reflexed.

Chondropoma, *Pfr. in Z.* f. *M.* 1847, p. 109; 1851, p. 72; *Consp.* p. 44; *Pneum. Mon.* p. 278; *Gray, Cat. Cycl.* p. 55.
Cyclostoma sp., *Auct.*

A. Peristome simple.
  1. Thin.
    a. Broadly expanded . . . § 1. N. 1.
    b. Shortly or scarcely expanded . § 2. „ 2–11.
  2. Rather thickened, narrow . . . § 3. „ 12–16.

B. Peristome indistinctly doubled . . . § 4. „ 17–21.

C. Peristome double.
  1. Umbilicus open.
    a. Outer edge narrow . . . § 5. „ 22–29.
    b. Outer edge broadly spreading . § 6. „ 30–91.
  2. Umbilicus rather closed . . . § 7. „ 32–36.

§ 1. *Peristome simple, thin, broadly expanded.*

1. Chondropoma magnificum.

Shell perforate, ovate-conic, thin, sculptured with longitudinal fold-like striæ, diaphanous, little shining, uniformly alabaster-white, or whitish, painted with variously-interrupted chestnut-coloured bands, of which the middle one is broader, composed of narrow angulated streaks; spire ventricose, with the apex subtruncate; suture simple; whorls remaining 5, moderately convex, last rounded; aperture perpendicular, ovate; peristome simple, shining, white, with chestnut-coloured spots, dilated above into the shape of a cap, shortly affixed to the penultimate whorl and narrower on that side, sinuate near the perforation and dilated into a spreading tongue below it; right and basal margin broadly reflexed and vaulted. Operculum typical. Length 29, breadth 15 mill.

Cyclostoma magnificum, *Sallé MSS.; Pfr. in Proc. Zool. Soc.* 1852; *Ic.* n. 389, t. 47, f. 20-22.

Chondropoma magnificum, *Pfr. Pneum. Mon.* p. 278.

Hab. Haiti (Sallé).

§ 2. *Peristome simple, thin, shortly or scarcely expanded.*

2. Chondropoma plicatulum.

Shell subperforate, oblong-turreted, not or only shortly truncate, thin, sculptured with crowded slight longitudinal plaits, diaphanous, horn-coloured-whitish, painted with rather broad chestnut-coloured bands, which are articulated or interrupted by streaks; whorls $7\frac{1}{2}$, convex, increasing regularly, last shortly detached anteriorly, rounded, spirally grooved round the obsolete perforation; aperture perpendicular, obliquely elliptical; peristome simple, scarcely spreading, angulated above. Operculum typical, brownish. Length 20, breadth $9\frac{1}{2}$ mill.

Cyclostoma plicatulum, *Pfr. in Z.* f. *M.* 1846, p. 48; *Ic.* n. 77, p. 82, t. 10, f. 14, 15, t. 28, f. 12, 13.

Chondropoma plicatulum, *Pfr. in Z.* f. *M.* 1847, p. 109, n. 3; *Gray, Cat. Cycl.* p. 56, n. 3; *Pfr. Consp.* n. 413; *Pneum. Mon.* p. 279.

β. Smaller, with the articulated bands narrow; length $16\frac{1}{2}$, breadth 8 mill.

Hab. Puerto Cabello, Venezuela.

3. Chondropoma Salleanum.

Shell subperforate, turreted-oblong, scarcely truncate, thin, trellised regularly by crowded raised striæ, not shining, fuscous-whitish, painted with chestnut-coloured spots, arranged in

indistinct series; spire conic-turreted; suture crenulated very closely; whorls 6, moderately convex, last scarcely detached anteriorly, with an interrupted brown band below the middle; aperture not quite perpendicular, ovate, slightly angulated above; peristome continuous, simple, expanded, with the columellar margin rather appressed, basal margin dilated. Operculum whitish. Length 21, breadth 9½ mill.

Cyclostoma Salleanum, *Pfr. in Z.* f. *M.* 1850, p. 78; *Ic.* n. 266, t. 37, f. 13, 14.
Chondropoma Salleanum, *Pfr. Consp.* n. 414; *Pneum. Mon.* p. 279.

β. Smaller, with 7 whorls, with the apex rather blunt, not truncate; peristome expanded more broadly. (*Pfr. Ic.* t. 37, f. 17, 18.)

Hab. Haiti (Sallé).

4. Chondropoma ? papyraceum.

Shell scarcely perforate, ovate-turreted, truncate, thin, sculptured with very crowded longitudinal plaits (the interstices being slightly decussated under a lens), not shining, pale fuscous, painted with angulated and waved chestnut-coloured lines; spire convexly turreted; suture marked with crowded and sharp small teeth; whorls remaining 5, moderately convex, the last girdled with a broad band near the base; aperture perpendicular, elliptical, of the same colour and shining within; peristome continuous, simple, broadly affixed to the penultimate whorl, rather equally expanded all round, angularly doubled above. Length 20, breadth 9 mill.

Cyclostoma papyraceum, *Adams, Contrib. to Conch.* n. 6, p. 92; *Pfr. Ic.* n. 371, t. 46, f. 39, 40.
Chondropoma ? papyraceum, *Pfr. Consp.* n. 415; *Pneum. Mon.* p. 280.

Hab. Jamaica.

5. Chondropoma Loweanum.

Shell perforate, ovate-turreted, often truncate, rather thin, whitish, marbled and irregularly striped with brownish, sculptured with raised spiral lines and more crowded longitudinal folds, which traverse the ribs, and of which the tenth or twelfth is usually stronger; suture closely crenulated; whorls 7, moderately convex, the two last ones turgid, last detached anteriorly, sharply keeled above; aperture rather oblique, angularly ovate; peristome simple, continuous, slightly expanded all round, angularly produced above. Operculum brownish-yellow. Length (when not truncate) 17, breadth 8½ mill.

Cyclostoma Loweanum, *Pfr. in Proc. Z. S.* 1852; *Ic.* n. 392, t. 47, f. 15, 16.
Chondropoma Loweanum, *Pfr. Mon. Pneum.* p. 281.

Hab. Haiti (Sallé).

6. Chondropoma eusarcum.

Shell subperforate, ovate, ventricose, rather thin, sculptured with very crowded longitudinal plaits, scarcely shining, diaphanous, pale reddish-yellow, girdled sometimes with interrupted reddish-brown lines; spire convex-conic, shortly truncate; suture rather simple; whorls remaining 4, convex, the last scarcely larger than the preceding, very shortly detached anteriorly, sculptured beneath with several spiral ridges; aperture scarcely oblique, angularly ovate; peristome simple, slightly expanded, with the margins joined above into a sharp angle, left margin nearly rectilinear. Operculum typical. Length 13, breadth $7\frac{1}{3}$ mill.

Cyclostoma eusarcum, *Pfr. in Proc. Z. S.* 1852; *Ic.* n. 395, t. 48, f. 1, 2.
Chondropoma eusarcum, *Pfr. Pneum. Mon.* p. 281.

Hab. Haiti.

7. Chondropoma litturatum.

Shell subimperforate, ovate-conic, not truncate, rather thin, minutely decussated by impressed longitudinal and spiral striæ, little shining, fuscous-whitish, painted very elegantly with letter-like chestnut-coloured stripes, and for the most part with a single brown band near the base; spire conic-turreted, entire, blunt; suture crenulated irregularly; whorls 7, little convex, the last one somewhat narrower, shortly detached anteriorly; aperture perpendicular, angularly ovate; peristome simple, straight, with the columellar margin very slightly reflexed. Operculum yellowish-white, pellucid. Length 16–17, breadth $7\frac{1}{2}$ mill.

Cyclostoma litturatum, *Pfr. in Z.* f. *M.* 1850, p. 78; *Ic.* n. 269, t. 37, f. 21, 22.
Chondropoma litturatum, *Pfr. Consp.* n. 416; *Pneum. Mon.* p. 281.

β. Shell a little larger, slightly truncate, with the last whorl more detached.

Hab. Haiti (Sallé).

8. Chondropoma Cumanense.

Shell perforate, turreted-oblong, truncate, thin, sculptured with crowded longitudinal plaits, silk-shining, pellucid, horn-coloured-

yellowish, painted with chestnut-coloured spots, which are arranged into bands; suture closely and slightly crenulated by the upper ends of the plaits; whorls remaining 5, moderately convex, last rounded beneath, shortly detached anteriorly, keeled above; aperture rather perpendicular, ovate, slightly angulated above; peristome free, simple, scarcely expanded all round. Operculum like that of Ch. plicatulum. Length 15, breadth 7½ mill.

Cyclostoma Cumanense, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 320, t. 41, f. 18, 19.
Chondropoma Cumanense, *Pfr. Consp.* n. 417, p. 68; *Pneum. Mon.* p. 282.

Hab. Cumana (Dyson).

9. Chondropoma? vespertinum.

Shell umbilicated, oblong-conic, often truncate, thin, decussated with minute striæ of growth and fine spiral ribs, rufous or whitish-fulvous, irregularly painted with punctiform or not interrupted bands; suture slightly crenulated, channelled at the lower part; whorls 7, convex, the last somewhat ventricose, very shortly detached; aperture angularly ovate, shining and minutely banded within; peristome free, simple, with the margins imperceptibly expanded. Length 21, breadth 9 mill.

Cyclostoma vespertinum, *Morelet, Test. Noviss.* ii. p. 19, n. 128.
Chondropoma? vespertinum, *Pfr. Mon. Pneum.* p. 418, n. 466a.

Hab. Palenque, near Chiapa.

This shell differs from C. Sagra (Orb.) by its more eminent sculpture, crenulated suture, peristome thin, not reflected, &c.

10. Chondropoma elongatum. B. M.

Shell subperforate, oblong-turreted, broadly truncate, rather solid, closely girdled with very subtle thread-like striæ, somewhat shining, fulvous; suture deep; whorls remaining 3½–4, moderately convex, last rounded; aperture rather perpendicular, obliquely ovate, angulated above; peristome continuous, shortly affixed, scarcely a little expanded, with the left margin indistinctly doubled, spreading narrowly. Length 11½, breadth 6 mill.

Turbo elongatus, *Wood, Ind. Suppl.* t. 6, f. 10.
Cyclostoma elongatum, *Gray, in Wood Suppl.* p. 36; *Sow. Thes.* n. 50, p. 107, t. 24, f. 64.
Cistula elongata, *Gray, Cat. Cycloph.* p. 60, n. 14.
Chondropoma elongatum, *Pfr. Consp.* n. 418; *Pneum. Mon.* p. 282.

β. ? With sharper spiral ridges.

Cyclostoma elongatum, *Pfr. Ic.* n. 79, p. 84, t. 10, f. 19, 20.

Hab. Cuba.

11. Chondropoma simplex.

Shell subperforate, oblong, truncate, rather solid, sculptured with raised spiral lines and very crowded longitudinal lines traversing the ridges, scarcely shining, pale orange-coloured, painted with reddish-brown lines, which are interrupted by streaks; suture rather simple; whorls 4½, convex, enlarging slowly, last rounded, more distinctly spirally grooved beneath, slightly detached anteriorly; aperture perpendicular, angularly ovate; peristome simple, continuous, very slightly expanded, with the margins joined above into a produced angle. Operculum fuscous-yellow. Length 11½, breadth 5 mill.

Cyclostoma simplex, *Pfr. in Proc. Zool. Soc.* 1852; *Ic.* n. 393, t. 47, f. 23, 24.

Chondropoma simplex, *Pfr. Pneum. Mon.* p. 283.

Hab. Haiti (Sallé).

§ 3. *Peristome simple, rather thickened, narrow.*

12. Chondropoma pictum. B. M.

Shell perforate, cylindric-conical, truncate, thin, closely striated spirally, pellucid, reddish-fulvous, painted with interrupted or broken chestnut-coloured bands, 3–4 of which are often broader, the rest linear; whorls remaining 4, convex, last rounded beneath; aperture rather perpendicular, ovate; peristome rather free, slightly thickened, shortly reflexed, shining, flesh-coloured within, with the margins united into an angle above, columellar margin dilated at its lower part. Operculum pale yellow-grayish. Length 21, breadth 11 mill.

Cyclostoma pictum, *Pfr. in Wiegm. Arch. f. Naturg.* 1839, i. p. 356; *Ic.* n. 129, p. 125, t. *A.* f. 4, 5, t. 15, f. 1–11; *Dêsh. Traité élém. Conch.* t. 82, f. 7, 8.

Cyclostoma semilabrum, *Reeve, Conch. Syst.* ii. t. 180, f. 1.

Cyclostoma Sagra, *Orb. Moll. Cub.* i. p. 263, t. 22, f. 21–23; *Sow. Thes.* n. 166, p. 150, t. 31, f. 279.

Cyclostoma Mahogani, *Gould, in Bost. Journ.* 1842, iv. 1.

Chondropoma pictum, *Pfr. in Z. f. M.* 1847, p. 109, n. 1; *Consp.* n. 419; *Pneum. Mon.* p. 283.

Chondropoma semilabre var., *Gray, Cat. Cycl.* p. 56.

β. Shell rather uniformly blackish-violaceous, of different size.

γ. Smaller, for the most part darker coloured; length 14, breadth 7½ mill.

Cyclostoma punctulata, *Férussac*, *Mus.*
Cyclostoma Sagra var., *Sow. Thes.* t. 31, f. 280.
Cyclostoma pictum var., *Pfr. Ic.* t. 15, f. 6, 7.

Hab. Cuba, where it appears to be widely diffused.

13. Chondropoma Poeyanum. B. M.

Shell perforate, ovate-turreted, truncate, solid, rather coarsely sculptured with raised spiral striæ, which are smaller alternately, somewhat shining, flesh-coloured, painted with interrupted reddish-brown lines; suture simple; whorls remaining 4, moderately convex, the last one somewhat ascending anteriorly, very narrowly perforate beneath; aperture perpendicular, angularly ovate; peristome indistinctly doubled, the edges being for the most part joined, except at the upper angle, white, slightly expanded, columellar margin rather straight, scarcely dilated. Operc. typical. Length 16, breadth 9 mill.

Cyclostoma Poeyana, *Orb. Moll. Cub.* i. p. 264, t. 22, f. 24–27.
Cyclostoma Poeyanum, *Pfr. Ic.* n. 261, t. 36, f. 22, 23.
Chondropoma pictum, β. *Pfr. in Z.* f. *M.* 1847, p. 109.
Chondropoma Hellenicum, *Gray*, *Cat. Cycl.* p. 56, n. 5.
Chondropoma Poeyanum, *Pfr. Consp.* n. 420; *Pneum. Mon.* p. 284.

β. Shell a little larger, with the peristome more expanded. (*Pfr. Ic.* t. 36, f. 26, 27.)

Cyclostoma Charpentieri, *Shuttlew. MSS.*

γ. Smaller, with the peristome doubled all round; length 11, breadth 6 mill. (*Pfr. Ic.* t. 36, f. 24, 25.)

Hab. Cuba.

This species differs from Ch. pictum by its sculpture, more narrow umbilicus, &c.; from Ch. obesum by its last whorl and aperture being much larger, &c.

14. Chondropoma obesum.

Shell subperforate, oblong-conic, truncate, rather solid, very elegantly girdled with raised lines (the interstices being minutely striated transversely), fulvous-yellow or reddish; whorls remaining 4, moderately convex, enlarging regularly, the last one shortly ascending anteriorly; aperture perpendicular, ovate; peristome slightly thickened, shortly expanded, with the margins angularly joined above. Operculum typical. Length 15, breadth 8 mill.

Truncatella obesa, *Menke*, *Synops.* ed. ii. p. 137.
Cyclostoma obesum, *Pfr. in Wiegm. Arch. f. Naturg.* 1840, i. p. 253; *Sow. Thes.* n. 146, p. 143, t. 31, f. 278; *Pfr. Ic.* n. 78, p. 83, t. 10, f. 21–23.

Chondropoma obesum, *Pfr. in Z.* f. *M.* 1847, p. 109, n. 5; *Gray, Cat. Cycl.* p. 56, n. 4; *Pfr. Consp.* n. 421; *Pneum. Mon.* p. 285.

Hab. Cuba.

15. Chondropoma semilabre.

Shell subperforate, ovate-elongated, truncate, rather solid, sculptured with longitudinal plaits and decussated sometimes with very indistinct spiral striæ, shining, diaphanous, whitish, painted, for the most part, with chestnut-coloured interrupted lines or narrow bands; suture crenulated very minutely; whorls remaining 4, slightly convex, last somewhat detached anteriorly, keeled above, concentrically striated beneath; aperture perpendicular, obliquely ovate, acuminated; peristome blunt, shortly and slightly expanded all round. Operculum whitish. Length 19, breadth 9½ mill.

Cyclostoma semilabris, *Lam. Hist.* vi. p. 146, n. 12; *Ed. Dés.* viii. p. 357; *Deless. Recueil*, t. 29, f. 1; *Chenu, Ill. Conch.* t. 1, f. 1.
Cyclostoma semilabrum, *Sow. Thes.* n. 44, p. 106, t. 24, f. 60.
Cyclostoma semilabre, *Pfr. Ic.* n. 130, p. 126, t. 15, f. 17, 18 (from *Deless. & Sowerby*), t. 37, f. 1, 2, t. 49, f. 17–20; *Pfr. in Z.* f. *M.* 1850, p. 80.
Chondropoma semilabre, *Pfr. in Z.* f. *M.* 1847, p. 109, n. 2; *Gray, Cat. Cycl.* p. 55, n. 2; *Pfr. Consp.* n. 422; *Pneum. Mon.* p. 286.

Hab. Haiti (Sallé).

16. Chondropoma dentatum. B. M.

Shell perforate, oblong-conic, truncate, rather thin, narrowly and slightly reticulated by longitudinal and spiral striæ, slightly shining, horn-coloured-yellowish or reddish-brown, painted with darker angulated longitudinal lines, marked sometimes with a single broad brown band; suture crenulated with rather close-set white teeth; whorls remaining 4½, moderately convex, last somewhat lessened, more strongly spirally grooved beneath; aperture perpendicular, obliquely ovate; peristome simple, somewhat thickened, very shortly expanded, often spotted with brown, continuous, scarcely touching the penultimate whorl, angulated above. Operculum pale fuscous. Length 9–13, breadth 4⅓–6 mill.

Cyclostoma dentatum, *Say, in Philad. Journ.* v. p. 125.
Cyclostoma lineolatum, *Anton Verzeichn.* p. 54, n. 1958. (Not *Lamarck.*)
Cyclostoma crenulatum, *Pfr. in Wiegm. Arch. f. Naturg.* 1839, i. p. 356; *Ic.* n. 123, p. 119, t. 14, f. 24, 25, 30, 31. (Not *Férussac.*)
Cyclostoma Auberiana, *Orb. Moll. Cub.* i. p. 260, t. 22, f. 12–14.
Cyclostoma Aubereanum, *Sow. Thes.* n. 150, p. 144, t. 31, f. 285.

Cyclostoma lunulatum, *Mörch. Catal. Conch.* p. 8.
Chondropoma crenulatum, *Pfr. in Z.* f. *M.* 1847, p. 109, n. 6; *Gray, Cat. Cycl.* p. 56, n. 6.
Chondropoma dentatum, *Pfr. Consp.* n. 423; *Pneum. Mon.* p. 286.

Hab. Florida (Say), and the Northern part of Cuba.

§ 4. *Peristome indistinctly double.*

17. Chondropoma hemiotum.

Shell perforate, oblong-turreted, rather thin, very faintly trellised with indistinctly-raised spiral and very close longitudinal lines (10–12 of which are collected into single fascicles), not shining, fuscous-whitish, painted, for the most part, with reddish-brown interrupted lines and a single broader band below the periphery; spire scarcely truncate; suture furnished with very crowded minute teeth; whorls 5–7, moderately convex, last shortly detached anteriorly, keeled above; aperture rather perpendicular, ovate; peristome rather double; inner edge continuous, slightly expanded; outer edge descending from the middle of the right margin, spreading narrowly, terminated on the middle of the left margin into a slightly-waving auricula. Operculum typical. Length 16, breadth $7\frac{2}{3}$ mill.

Cyclostoma hemiotum, *Pfr. in Proc. Z. S.* 1852; *Ic.* n. 396, t. 48, f. 3, 4.
Chondropoma hemiotum, *Pfr. Pneum. Mon.* p. 288.

Hab. Haiti (Sallé).

18. Chondropoma Newcombianum.

Shell scarcely perforate, oblong-turreted, thin, sculptured with raised concentric lines and very close-set longitudinal plaits traversing the ridges (each fourth or fifth being usually stronger), diaphanous, slightly shining, fulvous; spire elongate, scarcely truncate; suture crenulated; whorls $5\frac{1}{2}$–6, moderately convex, last nearly cylindrical, shortly detached anteriorly, with the spiral striæ more distinct and crowded beneath; aperture perpendicular, roundish, slightly angulated; peristome thin, indistinctly doubled, expanded shortly into the plane of the aperture. Operculum typical. Length 15, breadth $7\frac{1}{3}$ mill.

Cyclostoma Newcombianum, *Adams, Contrib. to Conchol.* p. 8; *Pfr. Ic.* n. 271, t. 37, f. 25, 26.
Cyclostoma Troscheli, *Pfr. in Z.* f. *M.* 1850, p. 64.
Cyclostoma Swiftianum, *Newcomb, MSS.*
Chondropoma Newcombianum, *Pfr. Consp.* n. 424; *Pneum. Mon.* p. 288.

Hab. W. Indies, the island of St. Thomas.

19. CHONDROPOMA? TURRITUM.

Shell subperforate, turreted, slightly truncate, trellised regularly with spiral and longitudinal raised lines, whitish, girdled with interrupted reddish-brown lines; suture rather deep, closely denticulated; whorls remaining 6, moderately convex, increasing regularly, last rounded, furnished beneath with strong spiral ridges; aperture perpendicular, ovate, fulvous within; peristome rather double; inner edge continuous, slightly expanded; outer edge angularly dilated above, with the right margin scarcely spreading, columellar and left margin wanting. Operculum? Length 16, breadth 7 mill.

Cyclostoma turritum, *Pfr. in Proc. Zool. Soc.* 1851; *Ic.* n. 313, t. 41, f. 1, 2,
Chondropoma? turritum, *Pfr. Consp.* n. 425, p. 69; *Pneum. Mon.* p. 289.

Hab. Honduras (Dyson).

20. CHONDROPOMA CRENULATUM.

Shell narrowly perforate, oblong-turreted, truncate, rather solid, sculptured with raised spiral ridges, and minute sharp longitudinal ribs traversing the ridges, cinnamon-coloured; suture furnished with somewhat distant white crenulations; whorls remaining 4, convex; aperture perpendicular, ovate; peristome reddish, continuous, rather doubled; inner edge slightly expanded, appressed; outer edge slightly spreading, somewhat interrupted on the penultimate whorl. Operculum typical. Length 11, breadth 5 mill.

Cyclostoma crenulatum, *Fer. Mus.; Pot. & Mich. Gal.* i. p. 235, t. 24, f. 3, 4; *Petit, Journ. Conch.* 1850, i. p. 47.
Cyclostoma Guadeloupense, *Pfr. Ic.* n. 193, p. 176, t. 28, f. 9–11.
Chondropoma Guadeloupense, *Pfr. in Z. f. M.* 1847, p. 124.
Chondropoma crenulatum, *Pfr. Consp.* n. 426; *Pneum. Mon.* p. 289.

Hab. Island of Guadeloupe.

21. CHONDROPOMA? DIAPHANUM.

Shell subperforate, oblong-turreted, truncate, rather thin, decussated with crowded spiral ridges and more crowded thread-like ribs traversing the ridges, diaphanous, uniformly whitish; spire elongate; suture crenate irregularly; whorls remaining $4\frac{1}{2}$, convex, rather equal, last detached anteriorly, keeled above, rounded and more distinctly spirally grooved beneath; aperture perpendicular, angularly ovate; peristome rather simple, continuous, slightly expanded all round. Operculum? Length 12, breadth 5 mill.

Cyclostoma diaphanum, *Pfr. in Proc. Zool. Soc.* 1851; *Ic.* n. 312, t. 40, f. 36, 37.
Chondropoma? diaphanum, *Pfr. Consp.* n. 427, p. 69; *Pneum. Mon.* p. 290.

Locality unknown.

§ 5. *Peristome double, umbilicus open, outer edge narrower.*

22. Chondropoma blandum.

Shell subperforate, ovate-turreted, truncate, rather solid, sculptured with raised spiral and more crowded longitudinal lines, traversing the ridges, diaphanous, somewhat shining, fuscous-violaceous or whitish, painted irregularly with reddish-brown stripes and minute lines; suture rather simple, whitish; whorls remaining 4, convex, last rounded, more strongly spirally striated beneath; aperture perpendicular, ovate; peristome white, double; inner edge shortly prominent; outer edge spreading narrowly and horizontally, slightly undulated, angularly dilated above, shortly indented on the penultimate whorl. Operculum like that of Ch. pictum. Length 18, breadth $9\frac{1}{2}$ mill.

Cyclostoma blandum, *Pfr. in Proc. Zool. Soc.* 1852; *Ic.* n. 391, t. 47, f. 13, 14.
Chondropoma blandum, *Pfr. Pneum. Mon.* p. 220.

Hab. Haiti (Sallé).

23. Chondropoma? jucundum.

Shell perforate, ovate-turreted, thin, narrowly reticulated by spiral and longitudinal chord-like lines, rather coarse, scarcely shining, orange-reddish; spire turreted, scarcely truncate; suture crowdedly denticulate; whorls 6–7, moderately convex, enlarging regularly, last furnished, round the perforation, with several stouter ridges; aperture somewhat oblique, irregularly ovate, of the same colour and shining within; peristome double; inner edge slightly expanded, incumbent, very slightly arcuated on the left side; outer edge continuous, spreading horizontally, shortly affixed to the penultimate whorl, narrower below the perforation. Operculum? Length 18, breadth $8\frac{1}{2}$ mill.

Cyclostoma jucundum, *Pfr. in Proc. Zool. Soc.* 1851; *Ic.* n. 370, t. 46, f. 36, 37.
Chondropoma? jucundum, *Pfr. Consp.* n. 428, p. 69; *Pneum. Mon.* p. 290.

Locality unknown.

24. Chondropoma Petitianum.

Shell subimperforate, oblong-turreted, truncate, sculptured with rather distant raised spiral lines and crowded longitudinal plaits

traversing the ridges, scarcely shining, whitish, marbled and indistinctly banded with fuscous; spire slender; suture crenulated distantly and irregularly; whorls remaining 5–5½, moderately convex, enlarging slowly, last not detached; aperture rather perpendicular, ovate; peristome double; inner edge narrowly expanded; outer edge spreading horizontally, spotted with brown, subauriculated above, indented on the penultimate whorl, narrow on the left side. Operculum fulvous. Length 14, breadth 5⅔ mill.

Cyclostoma Petitianum, *Pfr. in Z.* f. *M.* 1850, p. 78; *Ic.* n. 270, t. 37, f. 23, 24.

Chondropoma Petitianum, *Pfr. Consp.* n. 429; *Pneum. Mon.* p. 291.

Hab. Haiti (Sallé).

25. Chondropoma rubicundum.

Shell subimperforate, oblong-turreted, not truncate, crowdedly folded longitudinally, rather shining, diaphanous, wine-red; spire turreted, with the apex violaceous, rather pointed; suture simple; whorls 6, convex, the last one slightly and spirally grooved beneath; aperture perpendicular, ovate; peristome shining blood-red, double; inner edge shortly produced; outer edge narrowly spreading rectangularly, emarginated on the penultimate whorl. Operculum typical. Length 14, breadth 6 mill.

Cyclostoma rubicundum, *Morelet, Testac. Noviss.* i. p. 22, n. 56; *Pfr. Ic.* n. 273, t. 37, f. 29, 30.

Chondropoma rubicundum, *Pfr. Consp.* n. 430; *Pneum. Mon.* p. 291.

Hab. Guatemala, the provinces Peten and Vera Paz.

26. Chondropoma? harpa.

Shell shortly rimate, oblong-turreted, rather thin, sculptured with rather distant, chord-like longitudinal plaits, cinnamon-flesh-coloured, not shining, painted with reddish-brown lines, which are interrupted by streaks; spire turreted, not truncate, blackish-violaceous towards the blunt apex; suture deep, slightly crenated by the upper ends of the plaits; whorls 6, convex, last rounded; aperture perpendicular, roundish, rather ovate; peristome reddish, double; inner edge slightly expanded, appressed; outer edge scarcely dilated and spreading all round, shortly affixed to the penultimate whorl. Operculum? Length 12, breadth 6 mill.

Cyclostoma harpa, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 323, t. 41, f. 28, 29.

Cyclostomus? harpa, *Pfr. Consp.* n. 431, p. 69; *Pneum. Mon.* p. 292.

Hab. Almendares, near Havana.

27. Chondropoma integrum.

Shell perforate, turreted, rather thin, slightly decussated by indistinct raised spiral lines and crowded slight longitudinal ribs, each fourth or fifth of which appears stronger, fulvous, with interrupted reddish-brown bands; spire regularly turreted, with the apex not truncate, rather blunt; suture rather crowdedly denticulated; whorls 7, convex, the upper two smooth, the last one rounded, shortly detached anteriorly, scarcely descending, rounded beneath and marked with 2–3 continuous brown bands; aperture scarcely oblique, ovate; peristome rather double; inner edge continuous, affixed; outer edge spreading, somewhat angularly dilated above, undulated on the columellar margin. Operculum typical. Length 12, breadth 5 mill.

Cyclostoma integrum, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 382, t. 38, f. 25, 26.

Chondropoma integrum, *Pfr. Consp.* n. 432, p. 70; *Pneum. Mon.* p. 292.

Hab. West Indies.

28. Chondropoma truncatum.

Shell subperforate, conic-turreted, for the most part truncate, elegantly decussated, yellowish with reddish-brown points; suture slightly crenulated; remaining whorls 5; aperture ovate-roundish; peristome detached, reflexed, double. Operculum cartilaginous. Height 6–8, breadth 3–5‴.

Cyclostoma truncatum, *Wiegm. in Mus. Berol.; Rossm. Ic.* vi. p. 49, t. 28, f. 397.

Chondropoma truncatum, *Pfr. Consp.* n. 433; *Pneum. Mon.* p. 293.

Hab. Mexico.

29. Chondropoma ? Delatreanum.

Shell elongated, thick, imperforate, fulvous, girdled with fuscous bands, ribbed longitudinally and crossed by regular transverse striæ; spire elongated, conic, truncate when adult; suture strongly crenulate; remaining whorls 5; aperture ovate; peristome dilated, reflexed. Operculum ovate, smooth externally. Length 14, breadth 5 mill.

Cyclostoma Delatreana, *Orb. Moll. Cub.* i. p. 262, t. 22, f. 18–20.

Cyclostoma Dutertreanum (*Orb.*), *Petit, Journ. Conch.* 1850, i. p. 47.

Cistula Delatreana, *Gray, Cat. Cycl.* p. 59, n. 8.

Chondropoma ? Delatreanum, *Pfr. Consp.* n. 434; *Pneum. Mon.* p. 293.

Hab. Cerro de Cuzco (Délâtre).

§ 6. *Peristome double, umbilicus open, outer edge broadly spreading.*

30. Chondropoma latilabre.

Shell umbilicate, *globose-turbinate*, truncate, thin, closely sculptured with longitudinal fold-like striæ, diaphanous, fulvous, painted with numerous interrupted chestnut-coloured bands; suture deep; remaining whorls $3\frac{1}{2}$, very convex, last rounded; umbilicus middle-sized, pervious; aperture nearly perpendicular, rather ovate; peristome white, double; inner edge scarcely prominent, slightly expanded; outer edge dilated, spreading rectangularly all round, angulated above. Operculum typical, deep. Length 18, breadth 13 mill.

Cyclostoma latilabris, *Orbigny, Moll. Cub.* i. p. 255, t. 21, f. 12.
Cyclostoma latilabrum, *Sow. Thes.* n. 116, p. 131, t. 31, f. 281.
Cyclostoma latilabre, *Pfr. Ic.* n. 255, t. 36, f. 9, 10. Not n. 72.
Choanopoma latilabre, *Gray, Cat. Cycl.* p. 50, n. 7.
Chondropoma latilabre, *Pfr. Consp.* n. 435; *Pneum. Mon.* p. 294.

Hab. Cuba.

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31. Chondropoma irradians.

Shell subperforate, ovate-turreted, truncate, thin, decussated closely and coarsely by raised longitudinal and spiral striæ, pale horn-coloured, painted with four fuscous bands, which are rather dissolved into spots; whorls remaining 5, convex, last rounded; aperture perpendicular, ovate; peristome double; inner edge continuous, expanded narrowly; outer edge interrupted on the penultimate whorl, otherwise broadly spreading horizontally, striated concentrically, marked with four chestnut-coloured rays, radiatingly folded towards the margin. Operculum pale. Length 18, breadth 8 mill.

Cyclostoma irradians, *Shuttl. MSS.; Pfr. Ic.* n. 264, t. 37, f. 9, 10.
Chondropoma irradians, *Pfr. Consp.* n. 436; *Pneum. Mon.* p. 294.

Hab. Cuba.

§ 7. *Peristome double, umbilicus partly closed.*

32. Chondropoma Shuttleworthi.

Shell oblong, truncate, crowdedly folded spirally, decussated obsoletely by longitudinal striæ, silk-shining, very pale fulvous, painted with interrupted chestnut-coloured bands; spire oblong; remaining whorls 5, moderately convex, last rounded beneath; aperture oblique, angularly ovate; peristome double; inner edge short, slightly expanded; outer edge spreading broadly, striated

concentrically, marked with radiating plaits and chestnut-coloured rays, wanting on the columella, and altogether covering the umbilicus with a white vaulted lamina. Operculum typical. Length 22, breadth 11½ mill.

Cyclostoma Shuttleworthi, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 254, t. 36, f. 7, 8.

Chondropoma Shuttleworthi, *Pfr. Consp.* n. 437, p. 70; *Pneum. Mon.* p. 295.

Hab. Cuba.

33. Chondropoma tenebrosum.

Shell perforated by a half-closed umbilicus, ovate-conic, rather thin, decussated with raised longitudinal and more distant spiral striæ, scarcely shining, violaceous-blackish; spire conic, shortly truncate; suture impressed, simple; whorls remaining 4, convex, enlarging rapidly; aperture nearly perpendicular; large, ovate; peristome double; inner edge shortly prominent; outer edge dilated, spreading rectangularly all round, striated concentrically, angulated above, vaulted and half affixed on the penultimate whorl, forming a small sinus with the basal margin. Operculum typical. Length 16, breadth 9 mill.

Cyclostoma tenebrosum, *Morelet, Testac. Noviss.* i. p. 23, n. 60; *Pfr. Ic.* n. 265, t. 37, f. 11, 12.

Cyclostoma claudicans, *Poey, Memorias Hist. Nat. Cuba*, i. t. 7, f. 8–11; ii. p. 101, 106.

Chondropoma tenebrosum, *Pfr. Consp.* n. 438; *Pneum. Mon.* p. 295.

β. Shell fulvous, with the outer edge of the peristome slightly angulated above.

Hab. Cuba, Mountains of Guajaibon.

34. Chondropoma Ottonis.

Shell ovate-oblong, truncate, thin, minutely decussated, rather coarse, slightly diaphanous, fuscous-horn-coloured; suture middle, simple; whorls remaining 4, moderately convex, increasing regularly; aperture perpendicular, obliquely ovate, somewhat angulated above; peristome double; inner edge simple, white, shining, not prominent; outer edge expanded broadly, slightly auriculated above, with the right and basal margin spreading broadly, striated concentrically, abruptly cut off near the columella; left margin forming a vaulted lamina, which is affixed altogether and closes perfectly the umbilicus. Operculum typical. Length 12–18, breadth 7–10 mill.

Cyclostoma Ottonis, *Pfr. in Z.* f. *M.* 1846, p. 45; *Ic.* n. 36, p. 45, t. 6, f. 7, 8.

Choanopoma? Ottonis, *Pfr. in Z.* f. *M.* 1847, p. 107, n. 6; *Gray, Cat. Cycl.* p. 50, n. 6.

Chondropoma Ottonis, *Pfr. Consp.* n. 439; *Pneum. Mon.* p. 296.

Variety? Cyclostoma petricosum, *Morelet, Test. Noviss.* ii. p. 19, n. 130?

Hab. Cuba, Callejabas (Otto), Almendares, near Havana (Morelet, Poey).

To be compared with Choanopoma pudicum, *Orb.*

35. Chondropoma? semicanum.

Shell ventricosely conoidal, rather solid, whitish, pale fulvous towards the apex, coarsely sculptured with very crowded curled wrinkles and broader decurrent furrows; whorls 4, convex, the last ventricose, with more distant spiral wrinkles at the base; suture deep; aperture circular, shining, white within; peristome rather double, with the outer edge narrowly expanded, circularly channelled, dilated above, angularly folded near the umbilicus, which is almost covered. Length 13, breadth 8 mill.

Cyclostoma semicanum, *Morelet, Testac. Noviss.* ii. p. 20, n. 131.
Chondropoma? semicanum, *Pfr. Pneum. Mon.* p. 419, n. 491*a*.

Hab. Isla de Pinos, near Cuba.

36. Chondropoma? sericatum.

Shell deeply umbilicated, ventricosely conoidal, with the apex truncated, silk-shining, semi-diaphanous, thin, sculptured somewhat coarsely with very crowded curled wrinkles and several stripes decurring on the last whorl, fulvous-reddish, with a great number of obscure bands; suture deep; whorls 4, convex, the last turgid, spirally grooved round the umbilicus; aperture large, elliptical; peristome double; inner edge prominent; outer edge expanded, folded slightly and radiatingly, concealing the umbilicus by a thin, shining, whitish, convex callus. Length 18, breadth 10 mill.

Cyclostoma sericatum, *Morelet, Test. Noviss.* ii. p. 20, n. 132.
Chondropoma? sericatum, *Pfr. Pneum. Mon.* p. 419, n. 491*b*.

Hab. Cuba, the mountains of Guajaibon.

Operculum thick, of two horny coats, concamerated between.
Pomatiaina.

XXVI. POMATIAS.

Operculum cartilaginous, few-whorled, composed of two plates, concamerated within. Shell somewhat imperforate, conico-turreted or turreted, longitudinally striated or ribbed. Peristome nearly simple or double, the internal edge continuous, the external expanded or reflexed, often auriculated.

Pomatias, *Studer, in Coxe's Trav. in Switzerland*, 1789; *Verzeichn.* p. 21; *Hartm. in Neue Alpina*, i. pp. 204, 214, *et in Sturm's Fauna*, vi. 5, p. 34; *Cristof. & Jan. Catal.* p. 6; *Rossm. Iconogr.* vi. p. 50; *Villa Disp. Syst.* pp. 28, 58; *Gray, Syn. Brit. Mus.* 1842, p. 91; *Proc. Z. S.* 1847, p. 182; *Catal. Cycloph.* p. 61; *Graell's Cat. Moll. Esp.* p. 8; *Troschel, in Z.* f. *M.* 1847, p. 43; *Pfr. in Z.* f. *M.* 1847, pp. 47, 110; 1851, p. 174; *Consp.* p. 46; *Pneum. Mon.* p. 296; *Petit, in Journ. Conch.* i. 1850, p. 47.

Cyclostoma sp., *Drap, &c.*

A. Peristome eared . . . . . § 1. N. 1–6.
B. Peristome not eared . . . . . § 2. „ 7–10.

§ 1. *Peristome eared.*

1. Pomatias auritus. B. M.

Shell with a slight covered perforation, turreted, horn-coloured-grayish, sculptured with crowded hair-like ribs, and, on the middle whorls, with more distant, stouter, sharply-raised ribs; spire tapering towards the apex, which is rather blunt; whorls 9, moderately convex, last cylindrical; aperture nearly perpendicular, rather circular; peristome double; inner edge almost continuous, appressed on the penultimate whorl, white-lipped interiorly, expanded; outer edge dilated, spreading, angularly eared on both sides. Length 12, breadth $5\frac{1}{3}$ mill.

Cyclostoma auritum, *Ziegl. MSS.; Rossmassl. Ic.* vi. p. 50, t. 28, f. 398; *Sow. Thes.* n. 162, p. 148, t. 28, f. 172; *Pfr. Ic.* n. 207, p. 185, t. 26, f. 4–6.

Cyclostoma excissilabrum, *Mühlf. MSS.; Pot. & Mich. Gal.* i. p. 236, t. 24, f. 5, 6.

Cyclostoma . . . . *Contraine, Malac. Mediter.* t. 8, f. 5.

Pomatias excissilabre, *Cristof. & Jan. Catal.* p. 6, n. 4.

Pomatias aurita, *Trosch. in Z.* f. *M.* 1847, p. 43.

Pomatias auritus, *Pfr. in Z.* f. *M.* 1847, p. 110, n. 1; *Gray, Cat. Cycl.* p. 61, n. 1; *Pfr. Consp.* n. 440; *Pneum. Mon.* p. 297.

Hab. Dalmatia, Montenegro, Albania.

2. Pomatias obscurus. B. M.

Shell perforate, conic-turreted, sculptured with crowded rib-like striæ, horn-coloured, with three interrupted chestnut-coloured bands; spire with the apex rather blunt; whorls 8–9, somewhat convex, the last one sometimes decussated with distant spiral lines, obsoletely angulated beneath; aperture perpendicular, ovate-roundish; peristome rather double, white; inner edge continuous; outer edge white-lipped, spreading angularly, with the left margin slightly eared. Length 13, breadth 5 mill.

Cyclostoma obscurum, *Drap. Hist. Moll.* p. 39, t. 1, f. 13; *Rossm. Ic.* vi. p. 53, t. 28, f. 405; *Dupuy, Moll. du Gers*, p. 64, n. 2; *Mermet, Moll. Pyrén.* p. 74, n. 4; *Pfr. Ic.* n. 209, p. 186, t. 26, f. 1–3.
Cyclostoma patulum, *Sow. Thes.* n. 159, p. 147, t. 28, f. 170. (Not *Drap.*)
Pomatias Studeri *a. Hartm. in Neue Alpina*, i. p. 214.
Pomatias obscurum, *Jan. Catal.* p. 6.
Pomatias obscuras, *Pfr. in Z. f. M.* 1847, p. 110, n. 3; *Gray. Cat. Cycl.* p. 62, n. 6; *Pfr. Consp.* n. 441; *Pneum. Mon.* p. 298.

β. Smaller, with the peristome thin, expanded, slightly interrupted on the penultimate whorl; length 10, breadth 4 mill. (*Pfr. Ic.* t. 26, f. 31–33.)

Cyclostoma fimbriatum, *Held, MSS.*
Cyclostoma apricum, *Charpent, MSS.*
Cyclostoma maculatum, *Sow. Thes.* n. 160, p. 148, t. 28, f. 171?

Hab. The Pyrenees.

3. Pomatias tesselatus.

Shell subimperforate, conic, closely sculptured with slight sharp ribs, grayish-white, painted with several series of yellow dots; spire elongate-conic, rather blunt; whorls 8, little convex, last slightly angulated beneath; aperture perpendicular, angularly rounded; peristome subduplicate; inner edge continuous, appressed on the penultimate whorl; outer edge expanded into the shape of a bell, eared above, with the columellar margin cut out angularly. Operculum fuscous-grayish, with the nucleus blackish. Length 9, breadth 4 mill.

Cyclostoma tessellatum, *Wiegm. MSS. Mus. Berol.; Rossm. Ic.* vi. p. 53, t. 28, f. 404; *Sow. Thes.* n. 158, p. 147, t. 28, f. 173; *Pfr. Ic.* n. 208, p. 185, t. 26, f. 7–9.
Cyclostoma conspersum, *Ziegl. MSS.; Menke, Synops.* ed. ii. p. 40.
Cyclostoma maculatum var., *Pot. & Mich. Gal. Douai*, i. p. 239.
Pomatias tessellatum, *Villa, Disp. Syst.* p. 28.
Pomatias tessellatus, *Pfr. in Z. f. M.* 1847, p. 110, n. 2; *Gray, Cat. Cycl.* p. 62, n. 3; *Pfr. Consp.* n. 442; *Pneum. Mon.* p. 299.

Hab. The island of Corfu.

4. Pomatias maculatus. B. M.

Shell subimperforate, conic-turreted, closely and minutely ribbed, rather opaque, yellowish-horn-coloured, painted with interrupted reddish-brown bands; spire conic-turreted; with the apex rather pointed; whorls 8–9, moderately convex, the two last ones more rounded, last yellow anteriorly; aperture rather perpendicular, roundish, somewhat truncate; peristome double; inner edge

expanded, appressed, white lipped; outer edge bell-shaped, dilated, with the columellar margin produced into an auricula, which does not touch the penultimate whorl. Length $9\frac{1}{2}$, breadth 4 mill.

Cyclostoma patulum var., *C. Drap. Tabl. d. Moll.* p. 39.
Cyclostoma maculatum, *Drap. Hist.* p. 39, t. 1, f. 12; *Sturm, Fauna*, vi. 4, t. 3; var. *C. Pfeiffer, Naturg.* iii. p. 43, t. 7, f. 30, 31; *Rossm. Ic.* vi. p. 51, t. 28, f. 399, 400; *Pfr. in Wiegm. Arch. f. Nat.* 1841, i. p. 225; *Dupuy, Moll. du Gers.* p. 64, n. 3; *Mermet, Moll. Pyren.* p. 73, n. 3; *Schmidt, Krain. Conch.* p. 11; *Held. Wasser, Moll. Bayerns*, p. 22; *Pfr. Ic.* n. 212, p. 188, t. 26, f. 13–15, 25–27.
Cyclostoma turriculatum, var. a. et c. *Menke, Synops.* ed. ii. p. 40.
Cyclostoma maculata, *Désh. in Lam. Hist.* viii. p. 373, n. 45.
Helix septemspiralis, *Razoum, fide Stud. Verz.* p. 12.
Turbo maculatus, *Wood, Ind. Suppl.* t. 6, f. 11.
Pomatias Studeri, *β. Hartm. in Neue Alpina*, i. p. 214. (part.)
Pomatias maculatum, *Jan. Catal.* p. 6; *Strobel, Malac. Trent*, p. 17.
Pomatias maculata, *Trosch. in Z.* f. *M.* 1847, p. 43.
Pomatias maculatus, *Pfr. in Z.* f. *M.* 1847, p. 110, n. 6; *Gray, Cat. Cycl.* p. 61, n. 2; *Pfr. Consp.* n. 443; *Pneum. Mon.* p. 300.

Hab. South Germany, Switzerland, France, Illyria.

5. Pomatias patulus. B. M.

Shell subimperforate, slender, turreted, slightly shining, violaceous-fuscous; spire turreted, lessened towards the apex, which is rather pointed, smooth; whorls 8–10, convex, the middle ones slightly ribbed, the two last almost smooth, last cylindrical; aperture perpendicular, roundish; peristome double; inner edge shortly prominent; outer edge thin, dilated, expanded, slightly eared on both sides, the columellar auricula touching the penultimate whorl. Length 11, breadth $3\frac{1}{2}$ mill.

Cyclostoma patulum, *Draparn. Tabl. Moll.* p. 39, n. 2; *Hist.* p. 38, t. 1, f. 9, 10; *Rossm. Ic.* vi. p. 52, t. 28, f. 401–403; *Mermet. Moll. Pyren.* p. 73, n. 2; *Schmidt, Krain. Conch.* p. 11; *Pfr. Ic.* n. 211, p. 188, t. 26, f. 10–12; *Mörch. Catal. Conch.* p. 8, n. 200. (Licina.)
Cyclostoma patula, *Lam. Hist.* vi. p. 149, n. 27; *Ed. Désh.* viii. p. 362, n. 26.
Cyclostoma turriculatum, *C. Menke, Synops.* ed. ii. p. 40.
Cyclostoma maculatum, var. patulum, *Fitzing, Syst. Verz.* p. 115.
Pomatias Studeri, *β. Hartm. in Neue Alpina*, i. p. 214. (part.)
Pomatias patulum, *Jan. Catal.* p. 6; *Strobel, Malac. Ungheresc*, p. 33.

Pomatias patulus, *Pfr. in Z.* f. *M.* 1847, p. 110, n. 5; *Gray, Cat. Cycl.* p. 62, n. 5; *Pfr. Consp.* n. 444; *Pneum. Mon.* p. 301.

Variety? Pomatias Henricae, *Strobel, Malac. Trent.* p. 18.

Hab. South France, Illyria, Friaul, Italy, Hungary.

6. Pomatias Porroi.

Shell subimperforate, turreted, grayish-fulvous, ribbed regularly; ribs raised, straight, very distant, whitish; aperture rounded, lurid; peristome nearly perpendicular, double; outer edge eared on both sides, reflexed or spreading; inner edge continuous, affixed, blunt; palate not thickened; whorls 7–8, very convex, the anterior half of the last smooth, pale near the peristome, and painted with more or less conspicuous bands. Length 7–10, breadth 3½–4 mill.

Pomatias Porro, *Strobel, Note Malascol. Valbremb.* p. 22.
Pomatias Porroi, *Pfr. Consp.* n. 445; *Pneum. Mon.* p. 302.

Hab. Lombardy, Val Serina and Torta.

§ 2. *Peristome not eared.*

7. Pomatias striolatus.

Shell perforate, turreted-conic, rather thin, closely sculptured with rib-like striæ and single more raised ribs, pale horn-coloured, with three reddish-brown bands, the two upper of which are interrupted; spire regularly conic, with the apex rather blunt; whorls 8, convex, last nearly cylindrical; aperture oblique, ovate-roundish; peristome simple, interrupted, shortly expanded all round. Length 8¾, breadth 4 mill.

Cyclostoma turriculatum, *Philippi, Enum. Sicil.* i. p. 144.
Cyclostoma striolatum, *Phil. ibid.* ii. p. 119, t. 21, f. 7; *Sow. Thes.* n. 161, p. 148, t. 31, f. 286?; *Pfr. Ic.* n. 210, p. 187, t. 26, f. 16–18.
Cyclostoma Philippii, *A. Brown, in Mus. Cuming.*
Pomatias striolatum, *Porro, in Revue Zool.* 1840, p. 106; *Villa Disp. Syst.* p. 59.
Pomatias striolatus, *Pfr. in Z.* f. *M.* 1847, p. 110, n. 4; *Gray, Cat. Cycl.* p. 63, n. 7; *Pfr. Consp.* n. 446; *Pneum. Mon.* p. 302.

Hab. Italy and Sicily.

8. Pomatias cinerascens.

Shell subperforate, turreted, sculptured with oblique rather arcuate ribs, opaque, fuscous-ash-gray; spire regularly lessened, with the apex horn-coloured, rather pointed; whorls 8, convex, last nearly cylindrical; aperture oblique, circular; peristome simple, scarcely expanded, with the margins approximate, united by a

thin callus, columellar margin reflexed, not cared. Length $7\frac{1}{4}$, breadth 3 mill.

Cyclostoma cinerascens, *Rossmassl. Icon.* vi. p. 53, t. 28, f. 406 (C. canescens on the plate); *Pfr. Ic.* n. 213, p. 190, t. 26, f. 34, 36.
Cyclostoma rude, *Ziegl. MSS.; Menke, Synops.* ed. ii. p. 40.
Cyclostoma brevilabre, *Parr. MSS.; Anton Verz.* p. 54, n. 1962.
Pomatias cinerascens, *Villa, Disp. Syst.* p. 28; *Pfr. in Z. f. M.* 1847, p. 110, n. 7; *Gray, Cat. Cycl.* p. 62, n. 4; *Pfr. Consp.* n. 447; *Pneum. Mon.* p. 303.

β. With the peristome a little broader.

Cyclostoma turgidulum, *Parr. MSS.*
Cyclostoma latilabre, *Schmidt, MSS.* } fide *Anton.*

Hab. Dalmatia.

9. Pomatias scalarinus.

Shell subimperforate, turreted, sculptured with close-set oblique ribs, grayish-horn-coloured, painted with rusty spots, which are obsoletely arranged into two series; spire rather ventricose, with the apex pointed; whorls 8–9, convex, last cylindrical; aperture rather oblique, ovate-roundish; peristome indistinctly doubled; inner edge short; outer edge expanded, spreading, with an extremely minute auricula on the columellar margin. Length 8, breadth 3 mill.

Pomatias scalarinum, *Villa, Disp. Syst.* p. 38.
Pomatias scalarinus, *Pfr. in Z. f. M.* 1847, p. 110, n. 8; *Gray, Cat. Cycl.* p. 63, n. 8; *Pfr. Consp.* n. 448; *Pneum. Mon.* p. 304.
Cyclostoma scalarinum, *Pfr. Ic.* n. 214, p. 190, t. 26, f. 19–21.

β. Smaller; length 6, breadth $2\frac{2}{3}$ mill.

Cyclostoma cinerascens, *A. Schmidt.*

γ. Reversed. (*Pfr. Ic.* t. 26, f. 22–24.)

Hab. Istria and Dalmatia.

10. Pomatias gracilis.

Shell imperforate, turreted, ribbed obliquely (the interstices being much broader than the thread-like ribs), horn-coloured-grayish, scarcely shining; spire turreted, with the apex pointed, blackish-horn-coloured; whorls 8, very convex; aperture rather oblique, ovate-roundish; peristome simple, with the margins distant, united by a thin callus, right margin shortly expanded, columellar margin wanting from the middle upwards. Length 6, breadth $2\frac{1}{2}$ mill.

Cyclostoma gracile, *Küster, in Pfr. Ic.* n. 215.

Pomatias gracilis, *Pfr. in Z.* f. *M.* 1847, p. 110, n. 9; *Gray, Cat. Cycl.* p. 63, n. 9; *Pfr. Consp.* n. 449; *Pneum. Mon.* p. 304.

Hab. Almissa, Dalmatia (Küster).

c. Operculum thin, horny; front of last whorl with a keel round the axis, and sometimes a notch in the front of the lip. Realiana, like Pupiniana, but the operculum is ovate, few-whorled.

XXVII. LIAREA.

Operculum thin, few-whorled, horny. Shell turreted, rather smooth; aperture ovate; peristome continuous, double.

Realia, sp., *Gray, Proc. Z. S.* 1849, 167; *Cat. Cycl.* p. 63.
Realia, *Pfr. in Z.* f. *M.* 1851, p. 175; *Consp.* p. 47; *Pneum. Mon.* p. 305.

1. Liarea Egea. B. M.

Shell subperforate, turreted, rather solid, covered with a distantly folded, fuscous, scarcely shining periostraca; spire turreted, with the apex rather pointed; suture middle, folded; whorls 6½, moderately convex, last obtusely keeled, painted below the keel with a dark chestnut-coloured band; aperture somewhat oblique, ovate; peristome double; inner edge continuous, slightly expanded, angulated above; outer edge somewhat interrupted, dilated, bell-shaped, incurved. Length 7½, breadth 4 mill.

Realia Egea, *Gray, in Proc. Z. S.* 1849, p. 167; *Cat. Cycl.* p. 64, n. 9; *Pfr. Consp.* n. 450; *Pneum. Mon.* p. 305.
Cyclostoma Egea, *Pfr. Ic.* n. 304, t. 40, f. 17, 18.

Hab. Auckland, New Zealand.

2. Liarea? Gutta.

Shell globose-ovate, smooth, slightly shining, pellucid, yellowish-rufous; spire raised; whorls 3½–4, convex; suture deep; aperture semicircular; peristome simple, sharp, straight; columellar margin marked with a very shining effused callus. Height and breadth scarcely more than 2½ mill.

Hydrocæna Gutta, *Shuttleworth, Diagn. neuer Moll.* n. 1, p. 11.
Realia? Gutta, *Pfr. Mon. Pneum.* p. 305.

Hab. Teneriffa and Palma (Blauner).

XXVIII. REALIA.

Operculum thin, few-whorled, horny. Shell perforate or narrowly umbilicate, turreted, or globose-turbinate, keeled round the perforation; aperture ovate; peristome straight or expanded, with distant margins.

Realia, *Gray, Synopsis Brit. Mus.* 1840, 1842, 91; *Proc. Zool. Soc.* 1847, p. 182, n. 52; *Cat. Cycl.* p. 63.
Omphalotropis, *Pfr. in Proc. Z. S.* 1851; *Z.* f. *M.* 1851, p. 176; *Consp.* p. 48; *Pneum. Mon.* p. 306.
Hydrocena? sp., *Pfr. in Z.* f. *M.* 1847, p. 112.
Cyclostoma sp., *Auct.*

A. Turreted or oblong-conic . . . § 1. N. 1–6.
B. Globose-conic . . . . . § 2. „ 7–14.

§ 1. *Shell turreted or oblong-conic.*

1. Realia hieroglyphica.

Shell perforate, turreted, rather thin, reddish-white, marbled and striped with horn-colour; spire turreted, with the apex pointed; whorls 9, rather flat, the last forming less than ⅓ of the total length, marked with a prominent arcuated keel round the perforation, which is not pervious; aperture somewhat oblique, truncated-oval, slightly angulated beneath, reddish within; peristome simple, straight, with distant margins, columellar margin slightly reflexed. Operculum typical. Length 9, breadth 3½ mill.

Helix hieroglyphica, *Féruss. Mus.*
Bulimus hieroglyphicus, *Pot. & Mich. Gal. Douai*, i. p. 144, t. 14, f. 21, 22.
Cyclostoma hieroglyphicum, *Pfr. in Z.* f. *M.* 1846, p. 86; *Ic.* n. 204, p. 183, t. 30, f. 7–9.
Hydrocena? hieroglyphica, *Pfr. in Z.* f. *M.* 1847, p. 112, n. 7.
Realia hieroglyphica, *Gray, Cat. Cycl.* p. 64, n. 7.
Omphalotropis hieroglyphica, *Pfr. in Proc. Z. S.* 1851; *Consp.* n. 451; *Pneum. Mon.* p. 306.

Locality unknown.

2. Realia pupoides.

Shell subperforate, oblong-turreted, faintly striated, slightly shining, yellowish-horn-coloured; spire lessened towards the pointed apex; whorls 8, scarcely convex, last slightly keeled, compressed round the perforation; aperture nearly perpendicular, roundish-ovate; peristome simple with distant margins, sometimes united by a very thin callus, right margin rather sinuate, columellar margin somewhat reflexed. Length 6, breadth 2½ mill.

Bulimus pupoides, *Anton, Verzeichn.* p. 42, n. 1535.
Hydrocena Oparica, *Pfr. in Z.* f. *M.* 1847, p. 112.
Cyclostoma pupoides, *Pfr. Ic.* n. 205, p. 183, t. 30, f. 13–15.
Realia Oparica, *Gray, Catal. Cycl.* p. 64, n. 8.
Omphalotropis pupoides, *Pfr. in Proc. Z. S.* 1851; *Consp.* n. 452; *Pneum. Mon.* p. 307.

Hab. Opara (H. Cuming).

3. Realia terebralis.

Shell small, turreted, acuminate, yellow or pale horn-coloured, smooth, perforated by a rimated umbilicus, which is surrounded with a ridge; spire elevated, pointed; whorls 6–8, moderately convex, somewhat angulated anteriorly, partly covering each other; suture impressed; aperture roundish, angulated posteriorly and bell-shaped; peristome simple, broadly affixed to the penultimate whorl. Height $\frac{1}{4}$, breadth $\frac{1}{10}$ poll.

Cyclostoma terebrale, *Gould, in Proc. Bost. Soc.* 1847, p. 206; *Exped. Shells*, p. 39, ed. 1851, p. 106, f. 120; *Petit, in Journ. Conch.* i. p. 47.
Omphalotropis terebralis, *Pfr. in Proc. Z. S.* 1851; *Consp.* n. 453; *Pneum. Mon.* p. 307.

Hab. Tahiti and Eimeo.

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4. Realia rosea.

Shell scarcely perforate, ovate-turreted, solid, smooth, rose-coloured; spire elongate-conic, yellow towards the blunt apex; whorls 6, rather flat, the last one shorter than the spire, rounded beneath, furnished with a thread-like keel near the perforation; aperture oblique, ovate; peristome slightly thickened, straight, with the margins convergent, joined by callus. Length 8, breadth $4\frac{1}{2}$ mill.

Cyclostoma roseum, *Gould, in Proc. Bost. Soc.* 1847, p. 205; *Exped. Shells*, p. 39, ed. 1851, p. 105, f. 121; *Petit, Journ. Conch.* i. p. 47.
Omphalotropis rosea, *Pfr. in Proc. Z. S.* 1851; *Consp.* n. 454; *Pneum. Mon.* p. 308.

Hab. The Feejee Islands.

5. Realia vallata.

Shell small, solid, elongate-conic, shining, fuscous-horn-coloured; whorls 6, convex, somewhat angulated, last furnished with a strong rib surrounding the umbilicus; suture deep; aperture obliquely ovate; peristome simple, continuous, bell-shaped. Height $\frac{1}{5}$, breadth $\frac{1}{8}$ inch.

Cyclostoma vallatum, *Gould, in Proc. Bost. Soc.* 1847, p. 206; *Exped. Shells*, p. 39, ed. 1851, p. 107, f. 22; *Petit, in Journ. Conch.* i. p. 47.
Omphalotropis vallata, *Pfr. in Proc. Z. S.* 1851; *Consp.* n. 455; *Pneum. Mon.* p. 308.

Hab. The island Tonga Tabou.

6. Realia ? scitula.

Shell small, elongate-conic, thin, reddish-brown horn-coloured, sculptured only with thin striæ of growth; umbilicus narrow; spire elevated; whorls 6–7, rounded, the upper ones somewhat angulated; suture deep; aperture roundish-ovate, small, equalling $\frac{1}{3}$ of the total length; peristome simple, pale. Height $\frac{1}{5}$, breadth $\frac{1}{10}$ inch.

Cyclostoma scitulum, *Gould, in Proc. Bost. Soc.* 1847, p. 206; *Exped. Shells*, p. 39, ed. 1851, p. 108, f. 123; *Petit, in Journ. Conch.* i. p. 47.
Omphalotropis ? scitula, *Pfr. in Proc. Z. S.* 1851; *Consp.* n. 456; *Pneum. Mon.* p. 308.

Hab. Tahiti, Eimeo, Manua.

§ 2. *Shell globose-conic.*

7. Realia aurantiaca.

Shell perforate, ovate-conic, rather solid, minutely and crowdedly striated concentrically, red; spire conic, acute; whorls 6–7, scarcely convex, last striated longitudinally, slightly keeled on the periphery by a raised line, furnished with a second ridge near the perforation; aperture oblique, ovate, of the same colour within; peristome rather thickened, white, slightly expanded, with the margins disjoined; columellar margin simple, dilated above. Length $9\frac{1}{2}$, breadth $5\frac{1}{2}$ mill.

Cyclostoma aurantiaca, *Dêsh. in Bélanger Voy. Zool.* p. 416, t. 1, f. 16, 17; *Dêsh. in Lam. Hist.* viii. p. 373, n. 43.
Cyclostoma aurantiacum, *Müll. Synops.* p. 38.
Cyclostoma Belangeri, *Pfr. in Z. f. M.* 1846, p. 82; *Ic.* n. 201, p. 181, t. 30, f. 1–3.
Hydrocena ? Belangeri, *Pfr. in Z. f. M.* 1847, p. 112, n. 3.
Realia Belangeri, *Gray, Cat. Cycl.* p. 63, n. 2.
Omphalotropis aurantiaca, *Pfr. in Proc. Z. S.* 1851; *Consp.* n. 457; *Pneum. Mon.* p. 309.

Hab. Pondicherry.

8. Realia rubens.

Shell perforate, ovate-conic, rather thin, very indistinctly striated concentrically, opaque, marbled with brown and whitish; spire conic, acute; whorls 7, rather flat, the last one angulated below the middle by several raised lines, more distinctly keeled beneath; aperture scarcely oblique, ovate; peristome simple, slightly expanded, whitish, with the margins convergent. Length 8, breadth $4\frac{1}{2}$ mill.

Cyclostoma rubens, *Quoy & Gaim. Voy. Astrol.* ii. p. 189, t. 12, f. 36–39; *Dësh. in Lam. Hist.* viii. p. 368, n. 34; *Pfr. Ic.* n. 202, p. 181, t. 30, f. 10–12.
Cyclostoma Prangii, *Pot. & Mich. Gal. Douai*, i. p. 240, t. 24, f. 18, 19.
Hydrocena? rubens, *Pfr. in Z.* f. *M.* 1847, p. 112, n. 5.
Realia rubens, *Gray, Cat. Cycl.* p. 64, n. 5.
Omphalotropis rubens, *Pfr. in Proc. Z. S.* 1851; *Consp.* n. 458; *Pneum. Mon.* p. 309.

Hab. Isle of France.

9. Realia erosa.

Shell turreted, conic, perforate, reddish or violaceous yellow, with small reddish stripes towards the summit; spire acute; whorls $5\frac{1}{2}$, rounded, the last one forming half of the total length, ventricose, minutely wrinkled obliquely, and indistinctly keeled near the umbilicus; aperture half-circular, slightly angulated posteriorly; peristome simple, continuous, rose-red. Length 4, breadth 2‴.

Cyclostoma erosa, *Quoy & Gaim. Voy. Astrol. Zool.* ii. p. 191, t. 12, f. 40–44; *Dësh. in Lam. Hist.* viii. p. 370. n. 37.
Cyclostoma erosum, *Pfr. Ic.* n. 200, p. 180, t. 30, f. 32, 33. (From *Quoy.*)
Hydrocena? erosa, *Pfr. in Z.* f. *M.* 1847, p. 112, n. 4.
Realia erosa, *Gray, Cat. Cycl.* p. 63, n. 4.
Omphalotropis erosa, *Pfr. in Proc. Z. S.* 1851; *Consp.* n. 459; *Pneum. Mon.* p. 310.

Hab. Guam, Marianne Islands.

10. Realia dubia.

Shell perforate, ovate-conic, nearly smooth, rather thin, reddish-horn-coloured; spire conic, subacute; whorls 6, moderately convex, the last somewhat shorter than the spire, angulated near the perforation; aperture rather perpendicular, ovate slightly effuse beneath; peristome simple, sharp, with distant margins, right margin straight, columellar margin very shortly reflexed. Length 9, breadth 5 mill.

Cyclostoma dubium, *Pfr. in Z.* f. *M.* 1846, p. 86; *Ic.* n. 203, p. 182, t. 30, f. 4–6.
Hydrocena? dubia, *Pfr. in Z.* f. *M.* 1847, p. 112, n. 6.
Realia dubia, *Gray, Cat. Cycl.* p. 63, n. 6.
Omphalotropis dubia, *Pfr. in Proc. Z. S.* 1851; *Consp.* n. 460; *Pneum. Mon.* p. 310.

Hab. The island Opara (H. Cuming).

11. Realia multilirata.

Shell perforate, ovate-conic, rather solid, sculptured with rather sharp and close-set spiral ridges (one on the middle and another on the base being stronger), reddish-flesh-coloured; spire conic, rather pointed; whorls $5\frac{1}{2}$, the upper ones rather flat, last more convex; aperture slightly oblique, angularly ovate; peristome simple, straight, with the margins approximate, columellar margin emarginated above, dilated and somewhat reflexed at its lower part. Length $8\frac{1}{2}$, breadth 5 mill.

Cyclostoma multiliratum, *Pfr. in Proc. Z. S.* 1851.
Omphalotropis multilirata, *Pfr. Consp.* n. 461, p. 70; *Pneum. Mon.* p. 311.

Hab. Isle of France (Sir David Barclay).

12. Realia globosa.

Shell umbilicated, globose-conic, thin, very faintly striated, diaphanous, not shining, cinnamon-coloured, painted with opaque whitish spots, which are somewhat arranged into bands; spire conic, with the apex very pointed; whorls 6, the upper ones scarcely convex, last globose, with a subtle thread-like basal keel; aperture slightly oblique, ovate; peristome simple, with the margins almost contiguous, right margin curved strongly, columellar margin dilated and spreading in the middle. Length 8, breadth 5 mill.

Cyclostoma globosum, *Bens. MSS.* (fide *Barclay*); *Pfr. Ic.* n. 295, t. 39, f. 14–16.
Omphalotropis globosa, *Pfr. in Proc. Z. S.* 1851; *Consp.* n. 462, p. 71; *Pneum. Mon.* p. 311.

Hab. Trees in woods on the island Mauritius (Sir D. Barclay).

13. Realia plicosa.

Shell perforate, ovate-conic, thin, folded longitudinally and crowdedly, silk-shining, reddish-horn-coloured; spire conic, pointed; whorls 5, moderately convex, crenulated near the suture, last rather equalling the spire, rounded, with a compressed slight keel round the narrow perforation; aperture scarcely oblique, ovate; peristome simple, straight, with the margins approximate, columellar margin somewhat reflexed. Length 6, breadth 4 mill.

Cyclostoma plicosum, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 383, t. 46, f. 41, 42.
Omphalotropis plicosa, *Pfr. Consp.* n. 463, p. 71; *Pneum. Mon.* p. 311.

Locality unknown.

14. Realia expansilabris.

Shell scarcely perforate, ovate-conic, thin, rather smooth, slightly shining, pale yellow, minutely marbled with horn-colour and girdled with one or two reddish-brown bands below the periphery; spire elevated conic, rather pointed; whorls 6, scarcely convex, last with a thread-like keel in the middle and at the base; aperture oblique, ovate; peristome equally and narrowly expanded all round, white, with the margins rather distant. Length 5½, breadth 3 mill.

Cyclostoma expansilabre, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 296, t. 39, f. 17–19.
Omphalotropis expansilabris, *Pfr. Consp.* n. 464, p. 71; *Pneum. Mon.* p. 312.

Hab. The island Mauritius (Sir D. Barclay).

XXIX. BOURCIERA.

Operculum ovate, rather solid, horny, of a few rapidly-increasing whorls. Shell helicina-shaped; columella toothed beneath; aperture ovate; peristome spreading.

Bourciera, *Pfr. in Z.* f. M. 1851, p. 178; *Consp.* p. 49; *Pneum. Mon.* p. 312.

1. Bourciera helicinæformis.

Shell with the umbilicus closed, conoidally-globose, rather solid, faintly striated, slightly shining, greenish-horn-coloured; spire small, conoidal, rather pointed; whorls 6, moderately convex, last ventricose, somewhat ascending anteriorly, deeply indented and callous behind the columella, which is rather perpendicular and terminates backwards in a sharp tooth; aperture nearly perpendicular, angularly ovate; peristome thickened, white, broadly expanded and slightly reflexed all round. Height 11, greatest breadth 17½, least br. 13 mill.

Cyclostoma heliciniforme, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 224, t. 32, f. 8–10.
Bourciera helicinæformis, *Pfr. Consp.* n. 465, p. 71; *Pneum. Mon.* p. 312.

Hab. Yaraqui, Republic of the Equator (M. Bourcier).

Doubtful Species of Cyclophoridæ.

1. Cyclostoma cuspidatum.

Shell umbilicated, conoidal, acuminated, obliquely striated, marked with spiral lines; periostraca olivaceous-fuscous; spire elongated, slender, with the apex nipple-shaped; whorls 5, the first

ones convex, the two last rather convex above, furnished with a single ridge, the last one convex beneath, keeled on the periphery, marked with three ridges beneath, the keel and the umbilicar ridge being crenulate; aperture very oblique, nearly circular, slightly angulated above; peristome thin, sharp, with the columellar margin slightly expanded; umbilicus middle-sized, deep, showing more than one whorl. Operculum? Height 4, greatest breadth 6, least br. 5 mill. (*Bens.*)

Cyclostoma cuspidatum, *Benson, in Ann. and Mag. N. H.* viii. p. 189; *Pfr. Consp.* n. 466; *Pneum. Mon.* p. 313; *Ic.* n. 407, t. 49, f. 21–23.

Hab. The Neilgherries Mountains (Jerdon).

2. Cyclostoma? marginatum.

Shell white, subovate, wrinkled, perforate, with the whorls transversely marginated and striated. (*Chemn.*)

Turbo marginatus, *Chemn. Conch.* ix. 2, p. 60, t. 123, f. 1075, *a. β.*
Turbo limbatus, *Gmel. Syst.* p. 3606, n. 105.
Cyclostoma murrhinum, *Menke, Synops.* ed. ii. p. 39.
Cyclostoma marginatum, *Pfr. Consp.* n. 467; *Pneum. Mon.* p. 313.

Hab. Coromandel.

3. Cyclostoma? patera.

Shell rather solid, discoidal, sculptured alternately with broad granulated and linear ridges, covered with an olivaceous-fuscous periostraca; spire flat; suture slightly channelled; whorls $4\frac{1}{2}$, rather flattened, the last one furnished, on the periphery, with thread-like keels, separated by a furrow, convex beneath, slightly angulated round the very broad, bowl-shaped umbilicus; aperture perpendicular, roundish, somewhat angular; peristome simple, straight, with the margins approximate. Operculum? Height $2\frac{1}{2}$, greatest breadth 10, least br. 8 mill.

Cyclostoma patera, *Pfr. in Proc. Z. S.* 1851; *Ic.* n. 350, t. 43, f. 23–25; *Consp.* n. 468, p. 72; *Pneum. Mon.* p. 314.

Locality unknown.

4. Cyclostoma sarritum.

Shell subperforate, ovate-conic, furnished with numerous spiral lines, which are separated by narrow grooves, ferruginous-whitish, with the apex blunt, reddish; suture well impressed; whorls 4, very convex; aperture scarcely oblique, ovate, forming $\frac{3}{8}$ of the total length; peristome sharp, slightly expanded, with the margins distant, joined by callus, columellar margin angulated above. Length 2, breadth $1\frac{1}{4}$ mill. (*Bens.*)

Cyclostoma sarritum, *Benson, in Ann. and Mag. N. H.* viii. p. 188, *Pfr. Consp.* n. 469; *Pneum. Mon.* p. 314.

Hab. Cherra Ponjee, India.

5. Cyclostoma acerbulum.

Shell umbilicated, ovate-conic, not truncated, distinctly and minutely ribbed, with the ribs more distant and less raised on the last whorl, horn-coloured gray, with interrupted rusty bands; whorls 6–7, convex; aperture oblong; peristome rather double; inner edge whitish, shining, outer edge lamellar, slightly expanded, scarcely produced above. Length 10, breadth 4 mill. (*M.*)

Cyclostoma acerbulum, *Morelet, Test. Noviss.* ii. p. 19, n. 127; *Pfr. Pneum. Mon.* p. 420.

Hab. Vera Paz, Guatemala.

6. Cyclostoma? crenatum.

Shell turreted, subcancellated, white; whorls 8, rounded, contiguous, crenated near the suture; aperture circular, with the margin gibbous. (*Linn.*)

Turbo crenatus, *Linn. Syst.* ed. x. p. 765, n. 550, ed. xii. p. 1238, n. 638; *Mus. Lud. Ulr.* p. 659, n. 353; *Schroet. Einl.* ii. p. 39, n. 29; *Gmel. Syst.* p. 3604, n. 65; *Chemn. Conch. Cab.* ix. p. 156, t. 195, *A.* f. 1880, 1881.

Locality unknown.

7. Cyclostoma? corneum.

Shell conic-oblong, rather pointed, pellucid, testaceous or horny; whorls rounded, very faintly striated decussately, contiguous for $\frac{1}{5}$ of their breadth; aperture smooth within, with the margin reflexed; umbilicus spiral, pervious. (*Linn.*)

Turbo corneus, *Linn. Syst.* ed. x. p. 764, n. 554, ed. xii. p. 1238, n. 637; *Mus. Lud. Ulr.* p. 660, n. 355; *Schroet. Einl.* ii. p. 42, n. 33; *Gmel. Syst.* p. 3605, n. 59.

Locality unknown.

8. Cyclostoma? reflexum.

Shell umbilicated, convex-prominent; whorls rounded, faintly striated; aperture reflexed. (*Linn.*)

Turbo reflexus, *Linn. Syst.* ed. x. p. 765, n. 555, ed. xii. p. 1238, n. 638; *Schroet. Einl.* ii. p. 42, n. 34; *Gmel. Syst.* p. 3605, n. 70.

Hab. South Europe.

9. Cyclostoma lunulatum.

Shell cylindrical, solid, striated or reticulated elegantly, pellucid, white, marked with 4–5 bands composed of moon-shaped reddish-brown stripes; whorls 5; suture crenulate; aperture circular, produced beyond the preceding whorl; umbilicus like that of Nerita Licinia. Length 7, breadth $4\frac{1}{2}'''$. (*Müller.*)

Nerita lunulata, *Müll. Hist. Verm.* ii. p. 180, n. 366.
Turbo lunulatus, *Gmel. Syst.* p. 3605, n. 72.

Locality unknown.

This species has been referred by Mörch to Cyclostoma Auberiana Orb., but its characters appear to be more congruent with those of Cycl. decussata Lam.

Fam. II. HELICINIDÆ.

Operculum annular, not spiral, shelly, thick, or horny and thin, semiovate or rather triangular; nucleus subcentral, lateral. Remaining characters those of the suborder.

Helicinæ, *Ferussac*, 1821, *Tabl.* p. xxxiii.; *Rang.* 1829, *Manuel*, p. 128; *Potiez et Michaud*, 1838, *Gal. Douai*, i. p. 228.
Helicinidæ, *Latreille*, 1825, *Fam. Nat.; Ed. Berth.* p. 177; *Gray*, 1842, *Syn. Brit. Mus.* p. 91.
Helicinadæ, *Guild.* 1828, *Zool. Journ.* iii. p. 528.
Helicinaceæ, *Menke*, 1828, *Synops.* p. 22.
Helicinacea, *Menke*, 1830, *Synops.* ed. ii. p. 39; *Pfr.* 1841, *Symb. Hist. Helic.* i. p. 4 (excluding Pupina); 1847, *Z.* f. *M.* p. 151; *Pfr. in Chemn. Conch.* ed. sec. i. 18, p. 1; *Pneum. Mon.* p. 315.
Oligyradæ, *Gray*, 1847, *Proc. Z. S.* xv. p. 182. In *M. E. Gray, Fig. Mollusca*, iv. 121.

Lamarck proposed the genus *Helicina*, in 1799 (*Prod.* 76), without referring to a type; but in his *System*, both the character and the figure to which he refers evidently belong to a genus which he afterwards called *Robella*, a marine species of *Trochidæ*. In *L'Histoire*, he confined the genus to the terrestrial mollusca here described. He described four species.

In 1817, Say (*Journ. Acad. Phil.* 283), and in the article Conchology in the American edition of Nicholson's Encyclopedia (1819), described a species not known to Lamarck, as a new genus, under the name of *Oligyra;* he first described the animal and pointed out its affinity to and the differences from Cyclostoma. This may be considered as the first proper description of the genus.

In 1824, Mr. Gray (*Zool. Journ.* p. 62) published a monograph of the genus, describing twenty-seven species; and in the same volume, p. 250, described two additional ones. He mentions the affinity of the genus to Cyclostoma, and pointed out the excellent character which the operculum affords for distinguishing it from that genus. He divided the species into five sections, which are now regarded as genera.

In 1825, De Blainville (*Man. Malac.* 441), divided the genus Helicina into two sections: 1, *Ampullina* (H. striata); 2, *Olygira* (H. Neritella).

In 1840, Mr. Gray (*Syn. Brit. Mus.* 134 and 153) formed the genus into a family, and considered three of the sections as genera, thus: "The shells of the *Helicinæ* have simple mouths; *Alcadia* differs in having a slit in front of the mouth, into which is fitted the tooth-like process of the operculum; and the *Lucidellæ* are peculiar among operculated shells for having three or four teeth on the thickened edge of the mouth."

In the same year, Mr. Swainson (*Malacology*, ix. 337) divided the genus *Helicina* into four subgenera, by merely naming the sections of Mr. Gray's Monograph. § 1 is called *Trochatella;* § 2, *Oligyra;* § 3, *Helicina;* § 4, *Pachystoma.* He, like Ferussac, placed the toothed species, or sections 4 and 5 of Mr. Gray's Monograph, in the family *Helicidæ*, under the name of *Lucidella*, which Mr. Gray had already applied to the genus in the Museum Synopsis.

Lister (*Conch.* t. 11, f. 59, t. 74, f. 72) and Patrick Browne (*Hist. Jam.* t. 40) first described and figured these shells.

Mr. Gray, in the text of the figure of Molluscous Animals, calls the family Oligyradæ, and refers to it the genera *Oligyra*, *Alcadia*, and *Steganostoma.*

To these genera must be added the recently-described genus of *Stoastoma* of Adams, which Mr. Gray described, under the name of *Electrina*, as a species of Cyclostomidæ, not having seen the operculum.

I. STOASTOMA.

Operculum not spiral, calcareous, externally very deeply concave, with lamellæ slightly and irregularly projecting from the surface. Shell globose-conic, depressed or discoidal; aperture semi-oval or nearly semicircular, angulated above and beneath; peristome continuous, with the right margin arcuate, left margin nearly straight, sending off at its base a more or less distinct keel, which surrounds the more or less open perforation.

Stoastoma, *Adams, Monograph of Stoastoma*, 1849, p. 3; *Contrib. to Conch.* n. 8, p. 148, n. 9, p. 158; *Pfr. in Z.* f. *M.* 1849, p. 113,

1850, p. 57; *Petit, in Journ. Conch.* 1850, ii. p. 179; *Pfr. Pneum. Mon.* p. 319.
Electrina, *Gray, Catal. Cycl.* p. 30, 1850.

The known species may be arranged in the following manner:

A. Smooth (Electrina, *Gray, Cat. Cycl.* p. 30). § 1. N. 1.
B. With spiral striæ or ridges (Stoastoma).
a. Subturbinate . . . . . § 2. „ 2–7.
b. Globose, or conoidal-depressed . . § 3. „ 8–13.
c. Discoidal . . . . . § 4. „ 14–30.

§ 1. *Shell smooth.* Electrina, *Gray.*

1. Stoastoma succineum. B. M.

Shell umbilicate, globose-conic, thin, smooth, pellucid, amber-coloured; spire conic, rather pointed; whorls 6, moderately convex, the last one excavate beneath; umbilicus narrow, open; aperture somewhat oblique, semioval; peristome simple, sharp, furnished at the base of the columellar margin with a small callous tongue, which is horizontally produced into the umbilical keel. Operculum typical. Height 4, greatest breadth $4\frac{1}{4}$, least br. $3\frac{3}{4}$ mill.

Cyclostoma succineum, *Sow. in Proc. Z. S.* 1832, p. 32 (*Müll. Synops.* p. 37); *Thes.* n. 51, p. 108, t. 23, f. 18, 19; *Pfr. Ic.* n. 15, p. 24, t. 3, f. 12–14.
Cyclostoma australe, *Muhlf. MSS. in Anton Verz.* p. 54, n. 1946.
Cyclophorus? succineus, *Pfr. in Z.* f. *M.* 1847, p. 108, n. 22.
Stoastoma succineum, *Pfr. in Z.* f. *M.* 1849, p. 115, 1850, p. 59; *Pneum. Mon.* p. 319.
Electrina succinea, *Gray, Catal. Cycloph.* p. 30, n. 1.

Hab. The Polynesian island Opara (H. Cuming).

§ 2. *Shell spirally striated, subturbinate.*

2. Stoastoma pisum. B. M.

Shell perforate, globose-conic, sculptured with very fine, distant, spiral ridges, not shining, pale straw-coloured; spire conic, pointed; whorls 5, scarcely convex, the last one rounded; aperture nearly perpendicular, semioval; peristome simple, scarcely expanded, continuous, with the right margin arcuately dilated, basal margin continued into a lamelliform keel, which ascends near the perforation. Operc. typical. Height 3, greatest breadth $4\frac{1}{2}$, least br. 4 mill.

Stoastoma pisum, *Adams, Mon.* p. 11; *Pfr. in Z.* f. *M.* 1850, p. 59; *Pneum. Mon.* p. 320; *Petit, in Journ. Conch.* 1851, i. p. 83, t. 2, f. 5.

Hab. Jamaica.

3. Stoastoma Lindsleyanum.

Shell perforate, conoidal, sculptured with crowded distinct spiral ridges, which are unequal in the upper part of the last whorl, opaque, brownish-whitish; spire conic, pointed; whorls 5, scarcely convex, the last one rounded, flattened beneath; aperture perpendicular, semioval; peristome simple, continuous, with the right margin not dilated, basal margin continued into a sharp lamella, which is somewhat ascending near the perforation. Height $2\frac{1}{2}$, greatest breadth 3, least br. $2\frac{2}{3}$ mill.

Stoastoma Lindsleyanum, *Ad. Mon.* p. 12; *Pfr. in Z.* f. *M.* 1850, p. 60; *Pneum. Mon.* p. 320.

Hab. Jamaica.

4. Stoastoma Leanum. B. M.

Shell subperforate, globose-conic, diaphanous, wax-coloured, with very crowded spiral striæ under the lens; spire exactly conical, rather pointed; whorls not quite 5, moderately convex, the last one rounded, with a punctiform perforation beneath; aperture nearly perpendicular, oval; peristome simple, continuous, straight, with the right margin scarcely dilated, columellar margin slightly arcuate; basal angle obsolete, continued into a very small lamella. Height scarcely 2, greatest breadth $2\frac{1}{4}$, least br. 2 mill.

Stoastoma Leanum, *Ad. Mon.* p. 15; *Pfr. in Z.* f. *M.* 1850, p. 60; *Pneum. Mon.* p. 321.

Hab. Jamaica.

5. Stoastoma Redfieldianum. B. M.

Shell perforate, conic, rather thin, diaphanous, greenish-yellow, with crowded prominent ridges; spire exactly conical, pointed; whorls $4\frac{1}{2}$, moderately convex, the last one rounded, shortly detached anteriorly, rather deflected, dilated, bell-shaped; aperture perpendicular, semioval; peristome simple, continuous, with the right margin somewhat crenulate, basal margin slightly arcuate; basal angle continued into a raised lamella. Height $1\frac{1}{2}$, greatest breadth 2, least br. $1\frac{2}{3}$ mill.

Stoastoma Redfieldianum, *Ad. Mon.* p. 13; *Pfr. in Z.* f. *M.* 1850, p. 60; *Pneum. Mon.* p. 321.

Hab. Jamaica.

6. Stoastoma Jayanum. B. M.

Shell globose-conic, yellowish-brown, sculptured with several spiral raised lines, of which four or five are visible on the upper whorls; spire much and somewhat concavely elevated; whorls $4\frac{1}{2}$, convex, with a deep suture, last whorl subglobose; aperture quite exactly semicircular, very slightly campanulate; labrum moderately and above rather abruptly produced, scolloped by the produced carinæ; labium much detached from the penultimate whorl, slightly curved; umbilicus rather wide, with a moderately projecting lamella continued into the lower extremity of the labrum. Length 0.08, greatest breadth 0.09, least br. 0.075 inch.

Stoastoma Jayanum, *Adams, Mon.* p. 14; *Pfr. Pneum. Mon.* p. 322.

Hab. Jamaica.

7. Stoastoma Moricandianum.

Shell globose-conic; horn-coloured or very pale yellowish-green; with numerous very fine somewhat tortuous raised spiral lines, of which three or four are visible on the spire; and two or three still more minute lines in each interspace; but in some, all the lines are nearly equal; spire well elevated, with the outlines nearly rectilinear; whorls 4, quite convex, with a well-impressed suture; last whorl subglobose; aperture rather larger than a semicircle, a little campanulate; labrum moderately and above not abruptly produced, scarcely modified by the larger spiral lines; labium moderately detached from the penultimate whorl, slightly curved and reflected; umbilicus narrow, with the spiral lamella very small. Operc. rather deeply concave, subauriculate, very finely papillose. Height 0.075, greatest breadth 0.085, least br. 0.075 inch.

Stoastoma Moricandianum, *Adams, in Ann. Lyc. New York*, v. n. 2, p. 66; *Contr. to Conch.* n. 8, p. 150; *Pfr. Pneum. Mon.* p. 322.

Hab. Jamaica.

§ 3. *Shell striated, globose, or conoidal-depressed.*

8. Stoastoma Pfeifferianum. B. M.

Shell imperforate, somewhat conoidal, depressed, not shining, pale wax-coloured-brownish, sculptured with crowded and distinct spiral ridges; spire slightly raised, with the apex glassy, rather

blunt; whorls 5, rather flattened, the last one somewhat depressed, shortly detached anteriorly, excavated beneath; aperture semicircular; peristome simple, straight, with the right margin arcuately produced, basal margin continued into a keel, which ascends arcuately on the umbilical region. Height 2, greatest breadth $3\frac{1}{4}$, least br. $2\frac{3}{4}$ mill.

Stoastoma Pfeifferianum, *Adams, Mon.* p. 8; *Pfr. in Z.* f. *M.* 1850, p. 61; *Pneum. Mon.* p. 323.

Hab. Jamaica.

9. Stoastoma Fadyenianum. B. M.

Shell perforate, conoidally-depressed, thin, rather opaque, brownish-yellowish, sculptured with unequal and inequidistant spiral lines; spire raised in the middle into a small acuminated pin; whorls $4\frac{2}{3}$, scarcely convex, the last one depressed, rather angulated above, flattened beneath and deeply excavated in the centre; aperture perpendicular, rather larger than a semicircle; peristome simple, continuous, free, with the right margin scarcely dilated, basal margin acutely auriculated, continued into a spirally entering keel. Height $1\frac{2}{3}$, greatest breadth 3, least br. $2\frac{1}{4}$ mill.

Stoastoma Fadyenianum, *Adams, Mon.* p. 7; *Pfr. in Z.* f. *M.* 1850, p. 61; *Pneum. Mon.* p. 323.

Hab. Jamaica.

10. Stoastoma Chittyanum. B. M.

Shell subumbilicate, somewhat conoidally-depressed, with crowded minute ridges, rather opaque, pale horn or wax-coloured; spire conoidal, rather pointed; whorls $4\frac{1}{2}$, nearly flat, the last one rather rounded, detached anteriorly, flattened beneath; aperture perpendicular, semioval; peristome simple, thin, with the right margin strongly arcuate, columellar margin straight; basal angle obsolete, produced into a broad lamina, which generally covers the very narrow umbilicus. Height $1\frac{2}{3}$, greatest breadth $2\frac{2}{3}$, least br. 2 mill.

Stoastoma Chittyanum, *Adams, Mon.* p. 10; *Pfr. in Z.* f. *M.* 1850, p. 62; *Pneum. Mon.* p. 323.

Hab. Jamaica.

11. Stoastoma Cumingianum.

Shell subumbilicate, depressed, thin, with crowded spiral ridges, rather diaphanous, reddish or pale brownish; spire shortly and conoidally elevated, rather blunt; whorls not quite 4, moderately

convex, the last one rounded, deeply excavate beneath, forming a kind of umbilicus; aperture perpendicular, broad, semioval; peristome continuous, simple, somewhat reflected, with the right margin arcuately dilated, columellar margin scarcely detached, basal margin continued into a small lamina. Height $\frac{3}{4}$, greatest breadth $2\frac{1}{5}$, least br. $1\frac{3}{4}$ mill.

Stoastoma Cumingianum, *Adams, Mon.* p. 9; *Pfr. in Z.* f. *M.* 1850, p. 62; *Pneum. Mon.* p. 324.

Hab. Jamaica.

12. Stoastoma Petitianum.

Shell between globose and discoidal, dingy white, with eight or ten raised slender spiral lines, of which three or four are visible on the spire, and as many others, which are more minute; spire moderately elevated, convex; whorls $3\frac{1}{2}$, moderately convex, with a lightly-impressed suture; last whorl very rounded; aperture much contracted behind the labrum, which is but moderately produced, and is double, with the outer margin scarcely modified by the larger spiral lines; labium moderately detached from the penultimate whorl; umbilicus rather small, with the spiral lamella but moderately developed. Height 0.04, greatest breadth 0.06, least br. 0.05 inch.

Stoastoma Petitianum, *Adams, in Ann. Lyc. New York*, v. n. 2, p. 67; *Contrib. to Conch.* n. 8, p. 151; *Pfr. Pneum. Mon.* p. 324.

Hab. Jamaica.

13. Stoastoma Anthonianum.

This shell is like the preceding, but the spire is much depressed, the spiral lines are rather stronger, and the aperture is very campanulate, the labrum being very much produced before the deep constriction. Height 0.035, greatest breadth 0.07, least br. 0.055 inch. (*Adams.*)

Stoastoma Anthonianum, *Adams, Contrib. to Conch.* n. 8, p. 151; *Pfr. Pneum. Mon.* p. 325.

Hab. Jamaica.

§ 4. *Shell striated, discoidal.*

14. Stoastoma Gouldianum. B. M.

Shell umbilicate, discoidal, thin, pellucid, greenish-glassy, sculptured with distant sharp spiral keels and very minute lines; spire rather flat, with a very minutely raised apex; whorls $3\frac{1}{2}$, convex, the last one broad, depressed; aperture nearly perpendicular, rather triangular; peristome simple, sharp, continuous, with the right margin scolloped angularly, much produced

above, basal margin dilated and expanded; lower angle continued into a lamina, which is scarcely raised. Height 1, greatest breadth 3, least br. $2\frac{1}{4}$ mill.

Stoastoma Gouldianum, *Adams, Mon.* p. 5; *Pfr. in Z.* f. *M.* 1850, p. 62; *Pneum. Mon.* p. 325.

Hab. Jamaica.

15. Stoastoma Tappanianum.

Shell subdiscoidal, pale horn-colour, subtransparent, with seven spiral carinæ, of which the upper one is small and the lower one very minute, and of which two are visible on the upper whorls; with very delicate spiral raised lines, usually one between the first pair of carinæ and two or three in each following interspace; spire moderately and convexly elevated; whorls $3\frac{1}{2}$, moderately convex, with a deep suture; last whorl scarcely detached from the penultimate whorl near the aperture; aperture rather more than a semicircle, a little contracted behind the labrum, which is well produced, above rather abruptly produced, scarcely modified by the carinæ; labium much detached from the penultimate whorl and a little reflected; umbilicus rather wide, with the spiral lamella moderately developed. Operc. very deeply concave externally, smooth, auriculate at both extremities. Height 0.045, greatest breadth 0.086, least br. 0.07 inch.

Stoastoma Tappanianum, *Adams, in Ann. Lyc. New York*, v. n. 2, p. 65; *Contrib. to Conch.* n. 8, p. 149; *Pfr. Pneum. Mon.* p. 325.

Hab. Jamaica.

16. Stoastoma Vilkinsoniæ. B. M.

Shell subdiscoidal, pale horn-colour, subtransparent, with five spiral carinæ, of which one runs into the suture, and one appears on the middle of the whorls of the spire; some have, in place of the last one, two smaller carinæ; with very delicate spiral raised lines, usually four to six in each interspace; spire moderately and convexly elevated; whorls $3\frac{1}{2}$, angulated, with a deep suture; last whorl rather large, detached from the penultimate whorl near the aperture; aperture campanulate; labrum produced very far, above abruptly produced and auriculate, with wide and deep scallops formed by the produced carinæ; labium much detached from the penultimate whorl and a little reflected; umbilicus rather wide, with the spiral lamella moderately developed. Operc. very deeply concave, auriculate at both extremities, very firmly punctulate. Height 0.035, greatest breadth 0.07, least br. 0.055 inch.

Stoastoma Vilkinsoniæ, *Adams, in Ann. Lyc. New York*, v. n. 2, p. 64; *Contrib. to Conch.* n. 8, p. 148; *Pfr. Pneum. Mon.* p. 326.

Hab. Jamaica.

17. Stoastoma Hollandianum.

Shell subdiscoidal, pale horn-colour, subtransparent, with five spiral carinæ, one of which is visible on the spire; with very delicate spiral raised lines, usually three to six in each interspace; spire moderately elevated, convex; whorls 3½, moderately convex, subangular, with a well-impressed suture; last whorl scarcely detached from the penultimate whorl at the aperture; aperture rather large, slightly constricted behind the lip, which is moderately produced, above not very abruptly produced, scarcely modified by the carinæ; labium well detached from the penultimate whorl, scarcely reflected; umbilicus rather wide, with the spiral lamella moderately developed. Operc. deeply concave, subauriculate, smooth. Height 0.035, greatest breadth 0.065, least br. 0.055 inch.

Stoastoma Hollandianum, *Adams, in Ann. Lyc. New York*, v. n. 2, p. 65; *Contr. to Conch.* n. 8, p. 149; *Pfr. Pneum. Mon.* p. 326.

Hab. Jamaica.

18. Stoastoma Blandianum. B. M.

Shell perforate, rather discoidal, yellowish-whitish, sculptured under the lens with crowded spiral striæ, some of which are more raised; spire scarcely elevated; whorls 3½, scarcely convex, the last one broad, rounded, descending anteriorly, rather flattened beneath; aperture oblique, semioval; peristome simple, continuous, with the right margin arcuately dilated, columellar margin detached, basal margin continued into a little prominent lamina. Height 4½, greatest breadth 2¼, least br. 2 mill. (A variety is much smaller.)

Stoastoma Blandianum, *Adams, Mon.* p. 6; *Pfr. in Z.* f. *M.* 1850, p. 63; *Pneum. Mon.* p. 327.

Hab. Jamaica.

19. Stoastoma Agassizianum.

Shell subdiscoidal, horn-coloured, subtransparent; with, on the last whorl, four very prominent sharp carinæ, viz. one along the periphery, and two below and one above, the latter appearing only for a short distance on the penultimate whorl; with a few fine raised spiral lines on the upper part of the whorls and between the carinæ; spire slightly elevated; whorls 3½, planulate, with a moderately-impressed suture; last whorl planulate beneath,

near the end rapidly descending and slightly detached from the penultimate whorl; aperture very slightly campanulate; labrum slightly reflected, rounded, not scalloped; umbilicus of moderate size, with the spiral lamella excessively developed, and soldered by its exterior edge to the last whorl, forming over the umbilicus a large arch, which has an opening much larger than the aperture of the shell. Height 0.065, greatest breadth 0.118, least br. 0.095 inch.

Stoastoma Agassizianum, *Adams, Contrib. to Conch.* n. 9, p. 158; *Pfr. Pneum. Mon.* p. 327.

Hab. Jamaica.

20. Stoastoma Philippianum.

Shell subdiscoidal, convex above, pale horn-coloured, subtransparent; surface smooth and shining; spire moderately and convexly elevated; whorls 3½, slightly convex, with a moderately-impressed suture, last whorl regularly rounded over the periphery, very slightly detached from the penultimate whorl near the aperture; aperture slightly campanulate; labrum slightly produced beyond the labium, not scalloped; labium in its upper half a little detached from the penultimate whorl; umbilicus of moderate size, with the spiral lamella excessively developed and usually soldered by its exterior edge to the last whorl, forming over the umbilicus a large arch, which has an opening rather larger than the aperture of the shell. Height 0.055, greatest breadth 0.09, least br. 0.075 inch.

Stoastoma Philippianum, *Adams, Contrib.* to *Conch.* n. 9, p. 158; *Pfr. Pneum. Mon.* p. 328.

Hab. Aikendown in Westmoreland, Jamaica.

II. TROCHATELLA.

Operculum not spiral, semioval, flat, pale, more or less solid. Shell top-shaped, or globose-conic; aperture semioval, rather triangular; columella nearly flat, not sending backward any basal callus, sometimes uniting the margins of the peristome by a very thin deposit, which is not diffused.

Helicina, § 1, *Gray, Zool. Journ.* i. 66, 1828.
Trochatella, *Swainson, Malacol.* p. 337; 1840, *Pfr. in Zeitschrs.* f. *M.* 1847, p. 152; 1848, p. 82; *Chemn.* ed. ii. P. 18, p. 4; *Adams, Contrib. to Conch.*; *Pfr. Pneum. Mon.* p. 328.
Oligyra (part), *Gray, in Proc. Z. S.* 1847, p. 182.

The species belonging to this genus may be arranged in the following manner :—

A. Not carinate.
1. Right margin of the peristome sinuate § 1. N. 1.
2. Right margin not sinuate . . . § 2. „ 2–5.
B. Slightly carinate . . . . . § 3. „ 6–10.
C. Distinctly carinate . . . . . § 4. „ 11–17.

§ 1. *Shell not keeled, right edge of peristome sinuated.*

1. Trochatella regina.

Shell conic-globose, solid, minutely decussated by irregular oblique and impressed concentric lines, scarcely shining, lemon-yellow, or reddish-violaceous, marbled with white spots and painted with a blood-red band along the suture; spire conic, pointed; whorls 7, increasing rapidly, rather flat, the last one large, deflected anteriorly, rather angulate at the periphery; columella nearly perpendicular, flat; aperture oblique, triangularly lunate, shining, yellow inside; peristome simple, with the margins united by a very thin callus; right margin emarginated by a deep notch; basal margin effused, forming a right angle with the columella. Operculum shelly, white and excavate externally, yellowish and striate internally, with the columellar margin thickened. Height 18–21, greatest breadth 22–30, least br. 18–20 mill.

Helicina regina, *Morelet, Test. Noviss.* i. p. 19, n. 43.
Helicina maculosa, *Newcomb, MSS.*; *Jay, Catal.* 1850, p. 261, n. 6068.
Helicina multistriata, *Velasq. MSS.*; *Pfr. Ic.* n. 89, p. 65, t. 9, f. 37, 38.
Trochatella regina, *Pfr. Pneum. Mon.* p. 328.

Hab. Cuba, Mount Guajaibon.

§ 2. *Shell not keeled, right edge of peristome not sinuated.*

2. Trochatella virginea.

Shell turbinate-globose, rather thick, sculptured with crowded concentric ridges, opaque, whitish; spire turbinate, with the apex mucronate; whorls nearly 7, very little convex, last rounded; aperture very oblique, entire, rather semicircular; columella receding, grooved, terminated beneath in a rather free lamina; peristome bell-shaped, expanded, thickened internally, with the margin sharp. Operculum shelly, whitish, surrounded with a raised margin and covered with highly-elevated granulations. Height 19, greatest breadth 23, least br. 18 mill.

Helicina virginea, *Lea, Observ.* i. p. 162, t. 19, f. 58; *Orb. Moll. Cub.* i. p. 241 ? *Sow. Thes.* n. 20, p. 5, t. 1, f. 18, t. 3, f. 114.
Helicina ampullina, *Féruss. in Bull, Zool.* 1835, p. 101.
Trochatella virginea, *Pfr. in Z.* f. *M.* 1848, p. 82; *Ic.* n. 2, p. 5, t. 6, f. 7, 8; *Pneum. Mon.* p. 329.

Hab. Haiti (Sallé) and Cuba.

3. Trochatella chrysostoma.

Shell globose-conic, solid, sculptured with sharp ridges above and with more crowded spiral striæ beneath, opaque, white; spire conic, acutely mucronated; suture impressed; whorls 7, rather flat, last rounded; aperture oblique, semiovate, slightly triangular, gold-yellow within; columella perpendicular, dilated, shining; peristome somewhat expanded, with the margin joined by a very thin callus which is not diffused backwards. Operculum solid, shelly. Height $9\frac{1}{2}$, greatest breadth $12\frac{1}{2}$, least br. 10 mill.

Helicina chrysostoma, *Shuttleworth, in Mus. Cuming.*
Trochatella chrysostoma, *Pfr. Ic. Helicina,* t. 10, f. 3, 4; *Pneum. Mon.* p. 330.

Hab. Cuba.

4. Trochatella Gouldiana.

Shell globose-conic, rather thin, striated obliquely, somewhat decussated by scarcely-elevated spiral lines, which are more distant above and very crowded beneath, yellow, with an indistinct white band; spire conic, mucronate; whorls 6, rather flat, the last one angulated on the periphery, flattened beneath; aperture very oblique, roundish-semiovate; columella short, perpendicular, slightly dilated; peristome somewhat expanded, with the margins joined by a thin callus, the basal margin forming with the columella an angle of about 90°. Operculum solid, shelly, whitish. Height 8, greatest breadth 11, least br. 9 mill.

Helicina Sloanii, *Coll.*, not *Orbigny.*
Trochatella Gouldiana, *Pfr. in Z.* f. *M.* 1850, p. 191; *Ic.* t. 10, f. 5, 6; *Pneum. Mon.* p. 330.

Hab. Cuba.

5. Trochatella Sloanei.

Shell conic, top-shaped, thin, diaphanous, yellow, striated transversely; spire conic, with the apex pointed; whorls 7, flat, keeled; aperture triangular, white or reddish; peristome thin, sharp; columella not callous. Operculum white. Height 9, breadth 10 mill.

Helicina Sloanei, *D'Orb. Moll. Cub.* i. p. 248, t. 20, f. 4-6; *Sow. Thes.* n. 47, p. 10, t. 3, f. 102.
Trochatella Sloanei, *Pfr. Pneum. Mon.* p. 331.

Hab. Cuba, Cerro de Cuzco (Délâtre, Zanier).

§ 3. *Shell slightly keeled.*

6. Trochatella Petitiana.

Shell globose-conic, thin, sculptured with close-set, blunt, concentric ridges, diaphanous, pale yellowish; spire conic, pointed; whorls $6\frac{1}{2}$, rather flattened, last angulated obsoletely, more convex on both sides; aperture oblique, large, nearly semicircular, yellow within; columella short, simple, slightly concave; peristome thin, broadly expanded, with the margins joined by thin callus, upper and columellar margin wing-like, dilated. Operculum shelly, concave in the middle, thin. Height 8, greatest breadth $12\frac{1}{2}$, least br. 11 mill.

Helicina Petitiana, *Orb. Moll. Cub.* i. p. 247, t. 20, f. 1–3; *Pfr. Ic.* n. 53, p. 43, t. 7, f. 30–32.
Trochatella Petitiana, *Petit, in Journ. Conch.* 1851, i. p. 85; *Pfr. Pneum. Mon.* p. 331.

Hab. Jagua, Cuba (D'Orbigny, Poey).

7. Trochatella conica.

Shell conic, acuminated, rather convex beneath, closely striated spirally, pale reddish-brown, flesh-coloured or whitish; whorls 6, rather flat, sometimes prominent, last about as long as the spire, slightly angulated on the periphery; aperture rather perpendicular, entire, ovate-triangular; columella simple, slightly dilated backwards; peristome white, sharp, spreading broadly and rectangularly. Operculum thin. Height $4\frac{1}{3}$, greatest breadth, $5\frac{2}{3}$, least br. $4\frac{2}{3}$ mill.

Helicina conica. *Pfr. in Wiegm. Arch.* f. *Naturg.* 1839, i. p. 355; *Sow. Thes.* n. 45, p. 9, t. 3, f. 101.
Helicina elegans, *Orb. Moll. Cub.* i. p. 250, t. 20, f. 13–15.
Trochatella conica, *Pfr. in Z.* f. *M.* 1848, p. 82; *Ic.* n. 6, p. 7, t. 5, f. 9–11; *Pneum. Mon.* p. 331.

Hab. Cuba; frequent near Matanzas.

8. Trochatella elegantula.

Shell conic, rather thin, slightly carinated, sculptured above with rather distant elevated ridges, on the lower side with more crowded spiral striæ, reddish or yellow; spire conic, with the apex pointed; whorls 6, rather flat, the last more convex, somewhat flattened beneath; aperture diagonal, subtriangular; colu-

mella very short, arcuate, scarcely dilated above; peristome simple, slightly expanded. Height $3\frac{1}{2}$, greatest breadth 4, least br. $3\frac{3}{4}$ mill.

Trochatella elegantula, *Pfr. in Z.* f. *M.* 1850, p. 76; *Ic.* t. 10, f. 28–31; *Pneum. Mon.* p. 332.

Hab. St. Domingo (Sallé).

9. Trochatella tenuis.

Shell minute, pyramidate, thin, slightly decussated (under a lens), with rather crowded spiral lines and irregular striæ of growth, diaphanous, fuscous; spire conic, rather stair-shaped; whorls $4\frac{1}{2}$, flat, the two last ones slightly keeled; aperture very oblique, roundish-lunate; columella very shortly arcuate; peristome simple, straight, sharp. Operculum membranaceous, fulvous. Height 2, greatest breadth $2\frac{2}{3}$, least br. $2\frac{1}{3}$ mill.

Helicina tenuis, *Adams, Contrib. to Conchol.* n. 1, p. 14.
Trochatella tenuis, *Adams, Catal.* 1849 et 1851; *Pfr. Pneum. Mon.* p. 332.

Hab. Jamaica.

10. Trochatella rupestris.

Shell pyramidate, thin, spirally striated, not shining, lemon-yellow or brownish-red; whorls 5, flat, somewhat disjoined, the last ones slightly keeled, last slightly descending, rather convex beneath; aperture entire, ovate, somewhat quadrangular, columella short, perpendicular; peristome simple, sharp. Operculum very thin, pale yellow. Height 3, greatest breadth 4, least br. $3\frac{3}{4}$ mill.

Helicina rupestris, *Pfr. in Wiegm. Arch.* f. *Nat.* 1839, i. p. 355; *Sow. Thes.* n. 46, p. 10, t. 3, f. 120.
Trochatella rupestris, *Pfr. in Z.* f. *M.* 1848, p. 82; *Ic.* n. 7, p. 8, t. 5, f. 12–15; *Pneum. Mon.* p. 333.

Hab. Cuba (on the banks of the river Yumuri, near Matanzas).

§ 4. *Shell distinctly keeled.*

11. Trochatella Tankervillii. B. M.

Shell top-shaped, rather solid, obliquely striated and girdled with close-set granulated ridges, whitish-yellow, with two series of red spots; spire conic, pointed; whorls $6\frac{1}{2}$, flat, the last one moderately convex beneath, acutely keeled at the periphery; keel strongly crenate; aperture rather triangular, white and shining within; columella flat, shortly receding, forming a right angle with the basal margin; peristome broadly expanded, waved, with the margins joined by a very thin callus.

Operculum thin, shelly, white on both sides. Height 17, greatest breadth 20, least br. 17 mill.

Helicina Tankervillii, *Gray, in Zool. Journ.* i. p. 250; *Sow. Genera of Shells*, n. 36, f. 2; *Reeve, Conch. Syst.* ii. t. 186, f. 10; *Sow. Thes.* n. 19, p. 5, t. 1, f. 17.

Trochus Tankervillii, *Wood, Ind. Suppl.* t. 5, f. 10.

Trochatella Tankervillii, *Pfr. in Z.* f. *M.* 1848, p. 82; *Ic.* n. 1, p. 4, t. 5, f. 1, 2; *Petit, in Journ. Conch.* 1851, i. p. 85, t. 1, f. 9; *Pfr. Pneum. Mon.* p. 333.

Hab. Jamaica.

12. Trochatella constellata.

Shell top-shaped, thin, sculptured above with lamellar oblique ribs, marbled with white and yellowish; spire elevated gradually, with the apex mucronate; whorls 8, the upper ones forming a pointed apex, the following ones rather flat, furnished with a crenated keel, the last whorl receding below the preceding, coarsely trellised beneath with radiating ribs and spiral ridges, impressed in the centre, not callous; keel of the two last whorls dilated, spreading lamellarly, striated radiatingly and crenulated very elegantly; aperture very oblique, nearly rhombiform; peristome thin, with the margins parallel, upper margin straight, sinuous, basal margin reflexed. Operculum oblong, thin, white. Height 7, greatest breadth 13, least br. 12 mill.

Helicina constellata, *Morelet, in Revue Zool.* 1847, p. 144; *Testac. Noviss.* i. p. 21, n. 53; *Poey, Memorias*, i. t. 5, f. 15–17; ii. p. 116.

Helicina pagoda, *Velasquez, MSS.*

Trochatella constellata, *Pfr. Ic.* n. 8, p. 8, t. 9, f. 40, 41; *Pneum. Mon.* p. 334.

Hab. Sierra de Cristalos, Isla de Pinos, near Cuba.

13. Trochatella stellata.

Shell depressedly top-shaped, thin, sculptured above with lamellar oblique ribs and several concentric ridges, opaque, yellow, spotted with white; spire convexly conoidal, raised into a slender pointed apex; whorls about 8, rather flattened, the first ones smooth, the following girdled with a prominent denticulated keel, last not descending, moderately convex on both sides, radiatingly (but not concentrically) ribbed beneath, impressed in the middle; aperture very oblique, lanceolate-rhomboid; peristome thin, with the upper margin straight, sinuate, basal margin shortly reflected. Height 7, greatest breadth 13, least br, 11½ mill.

Helicina stellata, *Velasquez, MSS.*; *Jay, Catal.* 1850, p. 262, n. 6098; *Poey, Memorias*, i. t. 5, f. 18–20; ii. p. 117.

Helicina rota, *Newcomb, MSS.; Jay, Catal.* 1850, p. 262, n. 6091?
Trochatella stellata, *Pfr. Pneum. Mon.* p. 334.

Hab. Cuba (Poey).

14. Trochatella Josephinæ. B. M.

Shell conoidally top-shaped, sharply keeled, rather solid, wrinkled and folded irregularly and wavingly, not shining, straw-coloured; spire conoidal, with the apex extremely pointed and mucronate; whorls 5, flat, furnished with denticulated keels, the keel of the last being rather double, varied with red and white; aperture very oblique, securiform; peristome white, with the margins convergent, upper margin sinuate, imperceptibly expanded, basal margin slightly thickened and reflexed. Height 6, greatest breadth 12, least br. 10 mill.

Helicina Josephina, *Adams, Contrib. to Conch.* n. 1, p. 14.
Trochatella Josephinæ, *Adams, Catal.* 1849 and 1851; *Pfr. Pneum. Mon.* p. 335.

Hab. Jamaica.

15. Trochatella pulchella. B. M.

Shell subglobose-conic, thin, yellow, varied with white and interruptedly banded with reddish-brown, scarcely shining; spire conic, acuminated; whorls 5–6, rather flat, with a waving keel on the periphery and concentric elevated ridges above, last whorl not descending, closely spirally striated below the keel; columella short, perpendicular, dilated, flattened; aperture large, entire, somewhat triangularly ovate; peristome thin, broadly expanded on all sides, the upper and basal margins nearly straight. Operculum rather triangular, thin, horn-coloured-whitish. Height 9, greatest breadth 11½, least br. 9 mill.

Helicina pulchella, *Gray, in Zool. Journ.* i. p. 64, t. 6, f. 1; *Guérin, Icon. Moll.* t. 13, f. 9; *Désh. in Lam. Hist.* viii. p. 160, n. 8; *Sow. Thes.* n. 18, p. 5, t. 1, f. 15; *Reeve, Conch. Syst.* ii. t. 186, f. 13.
Trochatella pulchella, *Swains. Malacol.* p. 337; *Pfr. in Z.* f. *M.* 1848, p. 86; *Ic.* n. 4, p. 6, t. 5, f. 3; *Pneum. Mon.* p. 335.

β. Smaller; height 6⅔, greatest breadth 8½, least br. 6⅔ mill. (*Pfr. Ic.* t. 5, f. 4.)

Helix scitula, *Wood, Suppl.* t. 8, f. 64.
Helicina scitula, *Gray, in Wood, Suppl.* p. 39.
Helicina pulchella, *Pot. & Mich. Gal. Douai*, i. p. 229, t. 23, f. 5, 6.
Helicina Sloanii, *Feruss. Mus.; fide Pot. & Mich.*

Hab. Jamaica.

16. Trochatella Grayana.

Shell conoidally-globose, thin, slightly shining, uniformly yellow; spire short, conoidal, mucronate; whorls $5\frac{1}{2}$, enlarging rapidly, sculptured above with rather regular, crowded ridges, the two last ones convex, last whorl not descending, slightly keeled by a waving peripherical ridge, minutely concentrically striated beneath; aperture oblique, large, roundish-lunate; peristome simple, thin, white, broadly expanding, columellar margin dilated, reflected. Height $7\frac{1}{2}$, greatest breadth 10, least br. scarcely 8 mill.

Helicina pulchella var., *Sow. Thes.* t. 1, f. 16.
Trochatella Grayana, *Pfr. in Z.* f. *M.* 1848, p. 85; *Ic.* n. 5, p. 7, t. 5, f. 5, 6; *Adams, Catal.* 1849, et 1851; *Pfr. Pneum. Mon.* p. 336.

Hab. Jamaica.

17. Trochatella semilirata.

Shell conic-globose, solid, opaque, yellow, sculptured above with crowded white ridges; spire conic, rather pointed; whorls $5\frac{1}{2}$, rather flat, the last one moderately convex, keeled, very minutely concentrically striated beneath; aperture very oblique, nearly triangular; columella simple, passing immediately into the basal margin; peristome thickened, spreading angularly, with the margins united by an extremely thin callus, upper margin sinuate. Height $7\frac{1}{2}$, greatest breadth $10\frac{1}{2}$, least br. 8 mill.

Helicina semilirata, *Pfr. in Proc. Z. S.* 1848, p. 124.
Trochatella semilirata, *Pfr. in Z.* f. *M.* 1848, p. 82; *Ic.* n 3, p. 5, t. 6, f. 15, 16; *Pneum. Mon.* p. 336.

Hab. Venezuela (Mr. Linden).

III. LUCIDELLA.

Operculum membranaceous, semiovate, with the columellar margin scarcely thickened. Shell depressed, heliciform, not callous beneath; aperture sinuate, rather triangular; peristome thick, furnished with stout teeth.

Lucidella, *Gray, Syn. Brit. Mus.* 1840, p. 134, 1842, p. 91; *Proc. Z. S.* 1847, p. 182, n. 532; *Pfr. in Z.* f. *M.* 1847, p. 152, 1848, p. 82; *Ic. Helicinæ*, p. 9; *Pneum. Mon.* p. 337; *Petit, in Journ. Conch.* 1851, i. p. 85.
Lucidella, *Swains. Malacol.* p. 330 (section of Lucernella).
Helix spec., *Féruss. Wood, Désh.*
Helicina sp., *Gray, Zool. Journ.* i. p. 70.

1. LUCIDELLA AUREOLA. B. M.

Shell depressed-conoidal, rather thin, crowdedly striated concentrically, purplish-fuscous or straw-coloured, very faintly shining; spire conoidal, pointed; whorls almost 6, rather flattened, the last one slightly angulated on the periphery (the angle being sometimes rather knotty), flattened beneath and impressed on the centre, contracted anteriorly, with two grooves; aperture very oblique, sinuately triangular; columella very short, passing immediately into the peristome, which is furnished with two teeth, white, broadly expanded above, reflexed beneath. Operculum very thin, rather concave externally, pale, horn-coloured-yellow. Height 5½, greatest breadth 8½, least br. 7⅓ mill.

Cochlea, n. 12, *Browne, Jamaic.* t. 40, f. 3.
Helix (Helicodonta) aureola, *Féruss. Prodr.* n. 90; *Hist.* t. 48, f. 1, t. 49, *A.* f. 1; *Wood, Ind. Suppl.* t. 8, f. 65; *Dêsh. in Lam. Hist.* viii. p. 109, n. 172.
Helix areola, *Petit, in Journ. Conch.* 1851, i. p. 86, t. 1, f. 10.
Helicina aureola, *Gray, in Zool. Journ.* i. p. 70, t. 6, f. 15; *Sow. Thes.* n. 5, p. 3, t. 1, f. 44–46.
Lucidella aureola, *Swains. Malacol.* p. 330; *Pfr. in Z.* f. *M.* 1848, p. 82; *Ic. Helicinæ*, p. 9, t. 5, f. 21–23; *Adams, Contrib. to Conch.* pp. 16, 181; *Pfr. Pneum. Mon.* p. 337.

Hab. Jamaica.

IV. HELICINA.

Operculum semiovate, membranaceous or shelly. Shell heliciform, turbinate, globose or depressed, covered beneath with callus round the columella, which is rather straight and somewhat flattened; aperture triangular or semiovate, entire; peristome simple, straight or thickened, often spreading broadly.

Helicina, *Lamarck*, 1799, *Prodr.* p. 76; 1801, *Syst. An.* p. 94 (type, H. neritella); 1804, *Ann. du Mus.* v. p. 91 (character, not spec.); *Hist.* vi. 2, p. 102; *Ed. Dêsh.* viii. p. 153; *Gray, in Zool. Journ.* i. p. 62; *Syn. Br. Mus.* ed. 1842, p. 91; *Guild. in Zool. Journ.* iii. p. 528; *Pfr. in Chemn. Conch.* ed. nov. i. 18, p. 10 (excluding Alcadia); *Pneum. Mon.* pp. 338, 420.
Helicina (sp.), *Sow.* &c.
Olygyra, (orbiculata), *Say, in Journ. Acad. Philad.* i. p. 283; *Rang. Man. Malac.*
Pachytoma and Olygyra, *Swains. Malacol.* p. 337.
Oligyra, *Gray, in Proc. Z. S.* 1847, p. 182, n. 531 (misprint).
Olygira (Neritella), *Blainv. Man. Malac.* 441, 1825 (misprint).

Oligogyra, *Herrm. Ind.* ij. 140 (correction).
Ampullina (striata), *Blainv. Man. Malac.* 441, 1829.

Compare *Désh. in Lam. Hist.* viii. p. 154, and *Herrmannsen, Gen. Malac.* i. p. 508; *Suppl.* p. 61.

A. Peristome more or less toothed internally § 1. N. 1–7.
B. Peristome not toothed.
a. Straight, thickened, blunt.
α. Shell not keeled . . . § 2. „ 8–17.
β. Shell keeled . . . . § 3. „ 18–25.
b. Straight, sharp.
α. Shell globose or rather conic . § 4. „ 26–35.
β. Shell depressed, not keeled . § 5. „ 36–43.
γ. Shell depressed, keeled . . § 6. „ 44–45.
c. Expanded.
α. Not keeled.
1. Rather globose or conic.
* Spire small . . . § 7. „ 46–69.
** Spire as high or higher than the last whorl . § 8. „ 70–88.
2. Depressed . . . . § 9. „ 89–105.
β. Slightly keeled . . . § 10. „ 106–122.
γ. Sharply keeled . . . § 11. „ 123–147.
δ. With two more or less distinct keels . . . . . § 12. „ 148–152.

§ 1. *Peristome more or less toothed internally.*

1. Helicina Adamsiana. B. M.

Shell depressed, rather thin, showing under a lens crowded concentrical series of minute blisters, rather coarse, slightly shining, diaphanous, reddish; spire very shortly conoidal; whorls $5\frac{1}{2}$, rather flattened, last depressed, rounded on the periphery, not grooved anteriorly; aperture oblique, rather triangular; columella perpendicular, very short, somewhat angulated at its base, dilated above into a thin, circumscript callus; peristome spreading angularly, slightly reflexed, with the upper margin shortly detached and straight; columellar margin slightly toothed near the columella. Height $4\frac{1}{3}$, greatest breadth 8, least br. 7 mill.

Helicina Adamsiana, *Pfr. in Proc. Z. S.* 1848, p. 119; *Ic.* n. 1, p. 12, t. 7, f. 16, 17; *Pneum. Mon.* p. 339.

Hab. Jamaica.

2. Helicina depressa. B. M.

Shell depressed, thin, very minutely decussated, under a lens, with rather oblique and concentric striæ, pellucid, pale horn-coloured; spire scarcely raised, slightly mucronate; whorls 5, almost flat, enlarging rapidly, last depressed, grooved above behind the aperture; aperture oblique, triangular; columella very short, sending forth an arcuated, impressed line, which surrounds the thin basal callus; peristome expanded, slightly reflexed; upper margin depressed, furnished with a middle-sized tooth on the middle of its inner side; basal margin rather straight, with a single tooth near the columella. Height 3½, greatest breadth 7, least br. 6 mill.

Helicina depressa, *Gray, in Zool. Journ.* i. p. 69, t. 6, f. 14; *Désh. in Lam. Hist.* viii. p. 164, n. 18; *Sow. Thes.* n. 4, p. 3, t. 1, f. 47; *Pfr. Ic.* n. 2, p. 12, t. 7, f. 14, 15; *Pneum. Mon.* p. 340.

β. Spire a little more raised, teeth of the aperture less distinct (*Pfr. Ic.* t. 7, f. 12, 13).

Helicina Leana, *Adams, in Proc. Bost. Soc.* 1845, p. 11.

Hab. Jamaica.

3. Helicina plicatula.

Shell depressed-conoidal, rather solid, very elegantly and regularly sculptured with oblique folds, shining, horn-coloured; spire short, conoidal, rather pointed; whorls nearly 5, moderately convex, the last one impressed above, angulated very indistinctly on the periphery; aperture oblique, lunate; columella very short, simple, diffused into a very thin callus; peristome rather thickened, flesh-coloured, with the upper margin sinuous; basal margin slightly toothed near the columella. Height 3, greatest breadth 5, least br. 4 mill.

Helicina plicatula, *Pfr. in Proc. Z. S.* 1848, p. 123; *Ic.* n. 3, p. 13, t. 8, f. 36–39; *Pneum. Mon.* p. 340.
Helicina striatula, *Rang. in Mus. Cuming;* not *Sowerby*, nor *Pot. & Mich.*

Hab. Martinique.

4. Helicina rugosa. B. M.

Shell depressed, rather thin, very elegantly sculptured with crowded oblique plaits, pellucid, shining, reddish-amber-coloured; spire short, conoidal; whorls 5, moderately convex, increasing regularly, the last one impressed on the middle of its lower side; aperture oblique, entire, semiovate; columella simple, very short; peristome whitish, spreading narrowly,

with the right margin sinuate; basal margin with a single tooth near the columella; basal callus very thin. Height 2, greatest breadth 4, least br. $3\frac{1}{2}$ mill.

Helicina rugosa, *Pfr. in Wiegm. Arch. f. Nat.* 1839, i. p. 355; *Sow. Thes.* n. 72, p. 14, t. 3, f. 132; *Gould, in Bost. Journ.* iv. 4, p. 493; *Pfr. Ic.* n. 4, p. 13, t. 4, f. 28–30; *Pneum. Mon.* p. 341.

Hab. Cuba.

5. Helicina unidentata.

Shell depressed, rather thin, diaphanous, slightly shining, reddish, sculptured with strong blunt spiral ridges alternating with smaller ones; spire scarcely raised; whorls $4\frac{1}{2}$, depressed, last descending anteriorly, deeply concave beneath in the centre; aperture very oblique, broadly lunate; columella simple, dilated backwards into a whitish circumscript callus; peristome expanded, with a white internal lip; basal margin furnished with a large prominent tooth near the columella. Height $2\frac{1}{2}$, greatest breadth 5, least br. 4 mill.

Helicina unidentata, *Pfr. in Proc. Z. S.* 1848, p. 125; *Ic.* n. 5, p. 14, t. 9, f. 14–17; *Pneum. Mon.* p. 341.

β. With the tooth of the peristome less developed.

Helicina rusticella, *Morelet, Testac. Noviss.* i. p. 21, f. 51.

Hab. Honduras (Dyson); var. β. from the Island of Carmen (Morelet).

6. Helicina lirata.

Shell orbiculate-conoidal, thin, sculptured with close-set, sharp, concentric ridges, diaphanous, whitish; spire conoidal, pointed; whorls $4\frac{1}{2}$–5, very little convex, last keeled, impressed on the centre of its lower side; aperture oblique, roundish, rather triangular; columella very short, simple, dilated into an extremely thin callus; peristome shortly expanded; basal margin having a single indistinct tooth on the middle. Height $2\frac{3}{4}$, greatest breadth 4, least br. 3_3 mill.

Helicina lirata, *Pfr. in Z. f. M.* 1847, p. 150; *Ic.* n. 6, p. 14, t. 4, f. 40–43; *Pneum. Mon.* p. 341.

Hab. Mexico, Yucatan (Hegewisch).

7. Helicina lineata.

Shell depressed, thin, sculptured with rather crowded concentric raised lines, slightly keeled by a single peripherical ridge, pellucid, fulvous; spire rather conoidally depressed, with the apex blunt; whorls $4\frac{1}{2}$, moderately convex, the last one impressed beneath in the centre, covered with a thin callus; aperture very

oblique, rather triangular; columella very short; peristome narrowly reflexed; basal margin furnished internally with a strong, blunt tooth. Height 2, greatest breadth 4, least br. 3½ mill.

Helicina lineata, *Adams, in Proc. Bost. Soc.* 1845, p. 12; *Pfr. Pneum. Mon.* p. 342.

Hab. Jamaica.

§ 2. *Peristome toothless, straight, thickened, blunt; shell not keeled.*

8. Helicina Sagraiana.

Shell depressed-conoidal, thick, solid, faintly striated, reddish-brown, covered with a dark greenish periostraca; spire short, broadly conoidal, dirty reddish; whorls 4½, the upper ones flattened, last moderately convex, indistinctly angulated at its periphery, deflexed anteriorly; columella yellow, arcuated forward at its base, which terminates in a truncated knot; aperture oblique, purplish within; peristome straight, thickened, yellow, with the margins united by a thick, broadly-semicircular callus, upper margin nearly straight; basal margin separated from the columella by a semicircular notch, thickened internally by an oblique plait, which enters behind the columella. Operculum semiovate, solid, flesh-coloured and granulated externally, brownish-orange-coloured and shining internally. Height 15–16, greatest breadth 24–26½, least br. 20–22 mill.

Helicina Sagraiana, *Orb. Moll. Cub.* i. p. 240, t. 18, f. 12, 13; *Pfr. Ic.* n. 7, p. 15, t. 1, f. 1–4; *Pneum. Mon.* p. 342; *Désh. Traité élém. Conch.* t. 82, f. 21–24.

Helicina Sagra, *Sow. Thes.* n. 9, p. 3, t. 1, f. 10, t. 3, f. 126; *Reeve, Conch. Syst.* ii. t. 186, f. 14; *Gould, in Bost. Journ.* iv. 4, p. 492.

Hab. Cuba, Callajabas (E. Otto); Cerro de Cuzco (Délâtre); Trinidad (Lavallée); Matanzas (Bartlett).

9. Helicina festiva.

Shell conoidally-globose, solid, striated obliquely, slightly shining; spire reddish, shortly conoidal, rather pointed; whorls 5, nearly flat, the last one large, angulated indistinctly, fuscous-greenish, with darker rays; columella slightly arcuate, callous, slightly tuberculated at its base, dilated backwards into a thick callus; aperture little oblique, semiovate, fuscous-reddish within; peristome white, thickened, scarcely spreading. Operculum shelly, pearly-bluish. Height 14, greatest breadth 21, least br. 17 mill.

Helicina festiva, *Sow. in Zool. of Beech. Voy.* p. 145, t. 38, f. 23 *Sow. Thes.* n. 12, p. 4, t. 1, f. 9; *Pfr. Pneum. Mon.* p. 343.

Hab. Haiti (Sallé).

10. Helicina silacea.

Shell conoidally-depressed, solid, closely sculptured with deep, oblique, radiating grooves, whitish, green between the ribs; spire convex-conoidal, rather blunt; whorls $4\frac{1}{2}$, nearly flat, last slightly angulated at the periphery, girdled with a greenish-brown band, which is bordered with a paler one; columella receding, white, terminating at its base in a thick knot, forming backwards a thick circumscript callus, surrounded by another, which is broader, glassy and diffused till the right margin of the peristome; aperture diagonal, triangularly semiovate; peristome thick, white, broad, with the upper margin straight, sinuate, basal margin slightly reflexed. Operculum testaceous, pearly. Height 12, greatest breadth 20, least br. $16\frac{1}{2}$ mill.

Helicina silacea, *Morelet, Test. Noviss.* i. p. 20, n. 48; *Pfr. Pneum. Mon.* p. 344.

Hab. Cuba.

11. Helicina submarginata. B. M.

Shell depressed-conoidal, solid, faintly striated obliquely, decussated with impressed spiral lines, whitish or fuscous-orange-coloured, slightly shining; spire short, rather pointed; whorls $4\frac{1}{2}$, nearly flat, the last one scarcely descending anteriorly, with a pale band on the periphery; aperture oblique, whitish or reddish within; columella shortly arcuate towards the right side at its base, which terminates in a small knot; peristome straight, little thickened, with the margins joined by a rather thin callus spreading backwards; basal margin furnished with a distinct plait, entering behind the columella. Operculum like that of *H. Sagraiana*. Height 12, greatest breadth 17, least br. 14 mill.

Helicina submarginata, *Gray, in Zool. Journ.* i. p. 68, t. 6, f. 11; *Désh. in Lam. Hist.* viii. p. 162, n. 15; *Orb. Moll. Cub.* i. p. 244, t. 19, f. 7, 8; *Sow. Thes.* n. 10, p. 3, f. 123, 137; *Gould, in Bost. Journ.* iv. 4, p. 492; *Pfr. Ic.* n. 8, p. 16, t. 1, f. 8–10; *Pneum. Mon.* p. 344.

Helicina rubra, *Pfr. in Wiegm. Arch. f. Nat.* 1839, i. p. 355.

Hab. Cuba, near Matanzas, Rettro.

12. Helicina pulcherrima.

Shell depressed-globose, thick, sculptured with longitudinal fold-like striæ, shining, fuscous-reddish or greenish-yellow; spire

vaulted, with the apex rather blunt; whorls $4\frac{1}{2}$, almost flat, last rounded, marked with a pale peripherical band, shortly descending anteriorly, rather convex beneath; aperture oblique, semiovate, whitish within; columella white, shortly arcuate forwards, terminating at its base in a knot, diffused backwards into a thick circumscript callus; peristome straight, thickened internally, white, with the upper margin sinuate. Operculum nearly semicircular, rather thin, shelly, reddish internally. Height 11–14, greatest breadth 16–20, least br. 13–17 mill.

Helicina pulcherrima, *Lea, Observ.* i. p. 161, t. 19, f. 57, ii. p. 69; *Sow. Thes.* n. 11, p. 4, t. 1, f. 14; *Reeve, Conch. Syst.* ii. t. 186, f. 6; *Pfr. Ic.* n. 9, p. 17, t. 1, f. 5–7, t. 6, f. 5, 6; *Pneum. Mon.* p. 345.
Helicina crassa, *Orb. Moll. Cub.* i. p. 243, t. 19, f. 5, 6.

Hab. Cuba.

13. Helicina sanguinea.

Shell conoidally orbicular, thick, sculptured with slight punctiform striæ, opaque, blood-red; spire short, conoidal, rather pointed; whorls $4\frac{1}{2}$, flat, the last one moderately convex on both sides, slightly angulated at the periphery; aperture oblique, nearly triangular, higher than broad; columella furnished at its interior base with a tooth, dilated backwards into a thin, semicircular callus; peristome straight, somewhat lipped internally, with the basal margin nearly rectilinear. Height 6, greatest breadth $10\frac{1}{2}$, least br. 9 mill.

Helicina sanguinea, *Pfr. in Proc. Z. S.* 1848, p. 124; *Ic.* n. 10, p. 17, t. 8, f. 23, 24; *Pneum. Mon.* p. 345.

Hab. Honduras (Dyson).

14. Helicina striatula.

Shell nearly semiglobular, rather solid, faintly striated obliquely, diaphanous, scarcely shining, fuscous-reddish-brown; spire convex, slightly mucronate; suture linear, slightly bordered; whorls 6, nearly flat, last scarcely more convex; columella very short, dilated backwards into an extremely thin callus; aperture oblique, lunate, rather triangular; peristome straight, thickened, showing an indistinct knot at its junction with the columella. Height 5, greatest breadth $8\frac{2}{3}$, least br. $7\frac{2}{3}$ mill.

Helicina striatula, *Sowerby, in Proc. Z. S.* 1842, p. 6; *Thes.* n. 6, p. 3, t. 1, f. 43; *Pfr. Ic.* n. 11, p. 18, t. 8, f. 32, 33; *Pneum. Mon.* p. 346 (not *Potiez & Mich.*).

Hab. Martinique.

15. Helicina occulta.

Shell orbiculate-conoidal, striated, thick, dirty white; spire conoidal, acuminated; whorls $5\frac{1}{2}$, rather flat, keeled, the last one more convex, obtusely angulated, shortly descending anteriorly; aperture very oblique, entire, obtusely triangular; columella almost wanting, forming backwards a diffused basal callus; peristome straight, blunt, somewhat thickened internally. Height $4\frac{1}{2}$, greatest breadth 7, least br. $6\frac{1}{3}$ mill.

Olygyra occulta, *Say, in Transylv. Journ. of Med.* iv. p. 529; *Amer. Conch.* t. 46, f. 4–6; *Ed. Chenu* (*Bibl. Conch.* iii.), p. 57, t. 15, f. 2, 6–8.

Helicina occulta, *Pfr. Ic.* n. 12, p. 18, t. 4, f. 11, 12; *Pneum. Mon.* p. 346.

Hab. North America.

16. Helicina pisum.

Shell conoidally-depressed, thick, solid, smooth, yellow; spire conoidal, moderately pointed; whorls $4\frac{1}{2}$, rather flat, the last one obliquely descending anteriorly, indistinctly angulated on the periphery, rather flattened beneath; aperture oblique, nearly triangular; columella simple; peristome straight, blunt; basal callus yellow, shining. Operculum triangular, yellow. Height 4, greatest breadth 6, least br. 5 mill.

Helicina pisum, *Philippi, in Z.* f. *M.* 1847, p. 124; *Pfr. Ic.* n. 13, p. 19, t. 2, f. 30–32; *Pneum. Mon.* p. 347.

β. Somewhat larger, marked sometimes with two minute white bands; peristome thickened.

Hab. Sandwich Islands.

17. Helicina Orbignyi.

Shell depressed, rather lenticular, solid, faintly striated, scarcely shining, fuscous-flesh-coloured; spire very little raised; whorls $4\frac{1}{2}$, rather flat, the last one depressed, slightly angulated, not descending; aperture oblique, semiovate, higher than broad; columella short, furnished at its base with a forward prominent tooth, dilated backwards into a white semicircular callus; peristome straight, somewhat thickened, not emarginated near the tooth of the columella. Operculum semiovate, chestnut-coloured-reddish. Height 4, greatest breadth $7\frac{1}{3}$, least br. $6\frac{1}{3}$ mill.

Helicina Orbignyi, *Pfr. in Proc. Zool. Soc.* 1848, p. 123; *Ic.* n. 17, p. 21, t. 8, f. 30, 31; *Pneum. Mon.* p. 347.

Hab. Cuba.

§ 3. *Peristome toothless, straight, thickened, blunt; shell keeled.*

18. Helicina Maugeriæ.

Shell depressed, rather lenticular, thick, keeled, nearly smooth, yellow-whitish, with two broad red bands; spire short, vaulted, slightly mucronate; whorls 4½, rather flat, the last more convex beneath, scarcely descending anteriorly; aperture very oblique, narrow, lunate; base of the columella very shortly arcuate forward, dilated backward into an extremely thick, prominent, lemon-yellow callus; peristome thick, straight, pale yellowish; the margins joined by callus; upper margin sinuate; basal margin slightly emarginated near the columella. Height 7, greatest breadth 12, least br. 10 mill.

Helicina Maugeriæ, *Gray, in Zool. Journ.* i. p. 251; *Zool. of Beech. Voy.* t. 38, f. 25; *Sow. Thes.* n. 8, p. 3, t. 2, f. 55; *Pfr. Ic.* n. 14, p. 19, t. 6, f. 23, 24; *Pneum. Mon.* p. 348.

Locality unknown. Named after Mrs. W. Mauger.

19. Helicina Rohri. B. M.

Shell conoidal, thick, faintly striated and foveolate, opaque, scarcely shining, straw-coloured-whitish or purplish, with white bands; spire conoidal, rather pointed; whorls 4½–5, rather flat, the last one turgid above, furnished at the periphery with a sharp, compressed, prominent keel, deflexed anteriorly, scarcely convex beneath; aperture small, oblique, semiovate, higher than broad; columella rather simple, indistinctly tuberculated at its lower extremity, dilated backward into a semicircular white callus; peristome straight, sharp, with a thick white internal lip; upper margin sinuate. Height 7, greatest breadth 10, least br. 8⅔ mill.

Helicina Rohri, *Pfr. in Proc. Zool. Soc.* 1848, p. 124; *Ic.* n. 15, p. 20, t. 7, f. 24–27; *Pneum. Mon.* p. 348.
Helicina Marchionissa, *Hombr. & Jacq. Voy. Pol. Sud. Moll.* t. 11, f. 13–17? (*Nukahiwa*).

Hab. Marquesas Islands (Rohr).

20. Helicina miniata.

Shell subglobose, orbiculate, solid, thick, faintly striated above; spire red, convex, depressed; last whorl thick, slightly keeled, whitish; aperture oblique, triangular; columella smooth; peristome simple. Height 3, breadth 5.‴ (*Lesson.*)

Helicina miniata, *Lesson, Voy. Coquille*, p. 149, t. 13, f. 9; *Pfr. Pneum. Mon.* p. 349.

Hab. The Island Borabora.

21. Helicina crassilabris.

Shell depressed, rather lenticular, solid, opaque, smooth, whitish, indistinctly varied with horn-colour; spire scarcely raised, with the apex slightly mucronate; suture linear; whorls $4\frac{1}{2}$, flat, increasing rapidly, the last one keeled, scarcely descending anteriorly, little convex beneath; aperture very oblique, triangular; columella very short, forming a rounded angle with the peristome, which is straight, blunt, and somewhat thickened internally; basal callus rather thick, circumscript, shining. Height 4, greatest breadth 7, least br. $6\frac{1}{3}$ mill.

Helicina crassilabris, *Philippi, in Z.* f. *M.* 1847, p. 125; *Pfr. Ic.* n. 16, p. 20, t. 2, f. 33–36; *Pneum. Mon.* p. 349.

Hab. The Sandwich Islands? (Philippi); Venezuela? (Linden, in *Mus. Cuming*).

22. Helicina solidula. B. M.

Shell semiglobose, thick, solid, smooth, shining, yellowish or flesh-coloured; spire convex, obtuse; suture linear; whorls 5, rather flat, the last scarcely descending anteriorly, rather convex, keeled on the periphery; keel subacute, bordered beneath with an impressed line; aperture very oblique, lunate, somewhat triangular, gold-yellow within; columella simple, forming a sharp angle with the peristome, which is straight, blunt, with the margins joined by a semicircular, gold-shining basal callus. Height 4, greatest breadth 7, least br. $6\frac{1}{2}$ mill.

Helicina solidula, *Gray, in Zool. of Beech. Voy.* p. 146, t. 38, f. 26; *Sow. Thes.* n. 7, p. 3, t. 2, f. 52–54; *Pfr. Ic.* n. 18, p. 21, t. 2, f. 26–29; *Pneum. Mon.* p. 349.

Hab. Elizabeth Island.

23. Helicina lens.

Shell small, lenticular, yellow above, reddish-brown beneath; whorls 3, the last one keeled; spire flat-convex; aperture dilated, orange within; labrum thick; columella slightly callous, yellowish. Length $\frac{4}{20}$, breadth $\frac{5}{20}$ inch. (*Lea.*)

Helicina lens, *Lea, Observ.* i. p. 161, t. 19, f. 56; *Sow. Thes.* t. 1, f. 48 (from *Lea*); *Pfr. Pneum. Mon.* p. 350.

Hab. Feejee Islands.

24. Helicina constriata.

Shell small, lenticular, thick, rather smooth, not shining, opaque, whitish, painted with waving red lines; spire scarcely raised, blunt; whorls $4\frac{1}{2}$, flattened, the last one angulated, somewhat turgid beneath, rather constricted near the aperture, which is

oblique, triangular, reddish within; columella simple, dilated backward into a rather thick, whitish callus; peristome simple, blunt, with the right margin rounded. Height $3\frac{1}{2}$, greatest breadth 6, least br. 5 mill.

Helicina constricta, *Pfr. in Proc. Z. S.* 1848, p. 120; *Ic.* n. 19, p. 22, t. 7, f. 37–39; *Pneum. Mon.* p. 350.

β. With the basal callus fiery-red.

Helicina rhodostoma, *Mighels. MSS.* (Not *Sowerby.*)

Hab. Sandwich Islands.

25. Helicina lenticularis.

Shell globose-lenticular, keeled, smooth, orange-coloured above; suture white; aperture angulated exteriorly; lower part pale, moderately convex; peristome thickened; columella callous, orange-coloured at its base. General form approaching very near to H. viridis, Gray. (*Sow.*)

Helicina lenticularis, *Sowerby, in Tank. Catal. App.* p. viii. n. 1024; *Pfr. Pneum. Mon.* p. 350.

Hab. The Islands of Pacific Ocean.

§ 4. *Peristome toothless, straight, sharp; shell globose or subconic.*

26. Helicina cingulata.

Shell conoidally-globose, rather solid, sculptured with rather crowded spiral striæ, opaque, flesh-coloured-whitish, with two yellow bands; spire yellow, convexly conoidal; with the apex somewhat acute; whorls $5\frac{1}{2}$, moderately convex, last rounded; columella short, perpendicular, with a slight knot at its base, dilated backward into a thin circumscript callus; aperture scarcely oblique, semiovate; peristome simple, straight, with the basal margin slightly arcuate, forming an angle with the columella. Height 5, greatest breadth $7\frac{1}{2}$, least br. $6\frac{3}{4}$ mill.

Helicina cingulata, *Pfr. in Proc. Z. S.* 1852; *Pneum. Mon.* p. 351.

Hab. Haiti (Sallé).

27. Helicina costata. B. M.

Shell conic, rather solid, sculptured with spiral rib-like striæ, whitish or yellow; spire conic, acuminated; whorls 6, scarcely convex, the last one shorter than the spire, not descending anteriorly, rather flattened beneath; aperture oblique, entire, ovate, rather triangular, yellow within; columella short, receding, dilated backward into a thin shining callus; peristome

simple, sharp. Operculum thin, yellowish-horny. Height $5\frac{1}{3}$, greatest breadth 6, least br. $5\frac{1}{3}$ mill.

Helicina costata, *Gray, in Zool. Journ.* i. p. 67, t. 6, f. 6; *Désh. in Lam. Hist.* viii. p. 161, n. 11; *Sow. Thes.* n. 22, p. 5, t. 1, f. 20; *Pfr. Ic.* n. 20, p. 22, t. 4, f. 31–33, t. 8, f. 20; *Pneum. Mon.* p. 351.

Hab. Jamaica.

28. Helicina Dominicensis.

Shell globose-conic, rather solid, crowdedly striated concentrically, little shining, whitish, with yellow or fulvous bands; spire conic, with the apex pointed; whorls 6, rather flattened, united by a deep suture, the last one more convex, scarcely descending; columella extremely short, denticulated at its lower extremity, dilated backward into a thin, indistinctly circumscript callus; aperture little oblique, semiovate; peristome sharp, nearly straight. Operculum thin, shelly, flesh-coloured. Height 5, greatest breadth $6\frac{1}{3}$, least br. $5\frac{3}{4}$ mill.

Helicina Dominicensis, *Pfr. in Proc. Z. S.* 1850; *Pneum. Mon.* p. 352.

Hab. Haiti (Sallé).

29. Helicina rotelloidea.

Shell conic, thin, rather smooth, shining, olivaceous-yellowish, painted above with brownish-red waving streaks; spire conic, rather blunt; whorls 5, somewhat exserted, last slightly angulated on the periphery, scarcely convex beneath; aperture slightly oblique, rather triangular, equally high and broad; columella nearly perpendicular, forming an almost right angle with the basal margin of the peristome, which is simple and sharp; basal callus extremely thin. Operculum thin, shelly. Height 4, greatest breadth $5\frac{1}{2}$, least br. 5 mill.

Helicina rotelloidea, *Mighels, in Proc. Bost. Soc.* 1845, p. 19; *Pfr. Ic.* n. 21, p. 23, t. 3, f. 40–43; *Pneum. Mon.* p. 352.
Helicina Bronniana, *Philippi, in Z.* f. *M.* 1847, p. 124.

Hab. Sandwich Islands, Cahu (Mighels).

30. Helicina laciniosa.

Shell subconic, rather thin, faintly striated, scarcely shining, cinnamon-coloured, irregularly striped and spotted with whitish; spire conoidal, rather pointed; whorls $4–4\frac{1}{2}$, scarcely convex, the last marked with 1–3 slightly raised on the periphery, flattened beneath; columella very short, dilated backward into a diffused, shining callus; aperture oblique, semiovate, somewhat triangular; peristome simple, straight, sharp, its basal

margin forming with the columella an angle of about 90°. Operculum thin, horn-coloured. Height $2\frac{1}{2}$, greatest breadth 4, least br. $3\frac{1}{3}$ mill.

Helicina laciniosa, *Mighels, in Proc. Bost. Soc.* 1845, p. 19; *Gould, Exped. Shell*, 1851, p. 99, f. 108; *Pfr. Pneum. Mon.* p. 352.

Hab. Oahu, Sandwich Islands.

31. Helicina vestita. B. M.

Shell globose, thin, concentrically ribbed, small; aperture semilunar; outer lip thin (*Sow.*). Height and breadth about 2 mill.

Helicina vestita, *Guilding, in Sow. Thes.* n. 71, p. 14, t. 1, f. 42; *Pfr. Pneum. Mon.* p. 353.

Hab. North America.

32. Helicina margaritacea.

Shell globular, glassy, fragile, yellowish-whitish, very pellucid; spire moderately convex; aperture semicircular; peristome very thin, simple, with the columellar margin rather impressed. Height $1\frac{1}{2}$, breadth 2‴. (*Lesson.*)

Helicina margaritacea, *Lesson, Voy. de la Coquille*, p. 350; *Pfr. Pneum. Mon.* p. 353.

Hab. New Guinea.

33. Helicina exigua.

Shell extremely minute, conic, thin, very faintly punctulated and striated, pellucid, pale horn-coloured; spire conic, rather obtuse; whorls 5, very convex, last obsoletely angulated, nearly flat beneath; aperture oblique, lunate; columella shortly receding, dilated into a small callus; peristome simple, thin. Height 2, breadth $2\frac{1}{2}$ mill.

Helicina exigua, *Pfr. in Proc. Z. S.* 1848, p. 121; *Pneum. Mon.* p. 353.

Hab. Honduras (Dyson).

34. Helicina multicolor.

Shell small, rather solid, conic-globose, striated very minutely, lemon-yellow, banded sometimes with fuscous, or uniformly fuscous-reddish, convex beneath; spire with four moderately-convex whorls, last whorl rounded on the periphery; suture impressed; aperture lunate, broad; peristome simple, sharp, obtusely angulated at the base; columella dilated into a large callus. Height $\frac{1}{10}$, breadth $\frac{3}{20}$ inch. (*Gould.*)

Helicina multicolor, *Gould, in Proc. Bost. Soc.* 1847, p. 202; *Exped. Shells*, p. 36, ed. 1851, p. 100, f. 110; *Pfr. Pneum. Mon.* p. 353.

Hab. The Island Tonga Tabou.

35. Helicina microdina.

Shell minute, conic, minutely striated transversely, ridged spirally, yellow, darker coloured above; whorls 6, convex, the last angulated; columella arched, callous, and somewhat dilated above; aperture oblique, ovate, with the margin simple, straight. Height and breadth 4 mill. (*Mor.*)

Helicina microdina, *Morelet, Test. Noviss.* ii. p. 18, n. 124; *Pfr. Pneum. Mon.* p. 354.

Hab. Vera Paz, Guatemala.

At first sight similar to H. rupestris, *Pfr.* (*M.*).

§ 5. *Peristome not toothed, straight, sharp; shell depressed, not keeled.*

36. Helicina beryllina.

Shell rather solid, depressed conic, convex beneath; obtusely angulated on the periphery, polished, whitish-green; spire with five rather flattened whorls, last enlarging rapidly; suture linear; aperture large, transversely semi-elliptical; peristome simple; columellar callus spread broadly. Height $\frac{3}{8}$, breadth $\frac{1}{2}$ inch. (*Gould.*)

Helicina beryllina, *Gould, in Proc. Bost. Soc.* 1847, p. 202; *Exped. Shells*, p. 37, ed. 1851, p. 95, f. 111; *Pfr. Pneum. Mon.* p. 354.

Hab. Feejee Islands.

37. Helicina platychila. B. M.

Shell conoidally semiglobose, opaque, moderately shining, smooth, greenish-yellow or reddish; spire conic, slightly mucronate; suture flat; whorls $5\frac{1}{2}$, the upper ones flattened, last more or less angulated on the periphery, flattened beneath; aperture oblique, rather triangular; columella short, terminating in a small knot, which is dilated backward into the basal callus; peristome simple, shortly expanded. Operculum thin, horny. Height $6\frac{1}{2}$, greatest breadth 10, least br. 9 mill.

Helix platychilos, *Muhlfeldt, in Verhandl. Berl. Ges.* i. 4, p. 219, t. 3, f. 11.

Helicina platichila, *Pfr. in Symb. Hist. Helic.* ii. p. 95; *Ic.* n. 22, p. 24, t. 4, f. 22–24; *Pneum. Mon.* p. 354.

Helicina neritella, *Potiez & Mich. Gal. Douai.* i. p. 230, t. 23, f. 7, 8?

Helicina unicolor, *Féruss. Mus.*; *Pot. & Mich.* ibid. p. 231, t. 23, f. 15, 16.
Helicina lutea, *Sow. Thes.* n. 24, p. 6, t. 2, f. 59.

β. Somewhat larger, more solid, reddish-brown (*Pfr. Ic.* t. 7, f. 8, 9).

Helicina lutea, var., *Sow. Thes.* t. 3, f. 142.

Hab. The Islands of Guadeloupe and Martinique; and from Cuba ?

38. Helicina subfusca. B. M.

Shell rather depressed, thin, distinctly striated obliquely, slightly pellucid, somewhat shining, greenish-horn-coloured; spire short, with the apex rather pointed; whorls 5, scarcely convex, last somewhat depressed, flattened beneath; aperture oblique, semiovate; columella short, terminating in a small pointed knot; peristome simple, sharp, right margin not sinuate; basal callus extremely thin. Operculum semiovate, thin, reddish. Height 5, greatest breadth 8⅓, least br. 7¼ mill.

Helicina subfusca, *Menke, Synops.* p. 79, ed. alt. p. 133; *Pfr. Ic.* n. 23, p. 24, t. 4, f. 34–36; *Pneum. Mon.* p. 355.
Helicina rotellina, *Pot. & Mich. Gal. Douai.* i. p. 230, t. 23, f. 11, 12.
Helicina Hornbeckii, *Philippi, in Z.* f. *M.* 1847, p. 125.

β. Shell darker, chestnut-coloured (*Pfr. Ic.* t. 8, f. 37, 38). B. M.

Helicina castanea, *Guilding, in Sow. Thes.* n. 67, p. 13, t. 1, f. 31, 32.

Hab. West Indies, St. Thomas, Portorico, etc.

39. Helicina nitida.

Shell rather depressed, moderately convex on both sides, thin, smooth, shining, pellucid, reddish-flesh-coloured; spire somewhat raised, with the apex slightly mucronate; whorls 5, rather flattened, enlarging rapidly, last not descending; aperture somewhat oblique, nearly triangular; columella very short, perpendicular, terminating in a small pointed tooth; peristome simple, sharp, with the upper margin arcuated forward; basal callus extremely thin. Operculum membranaceous, flesh-coloured. Height 5½, greatest breadth 8, least br. 7 mill.

Helicina nitida, *Pfr. in Wiegm. Arch.* f. *Naturg.* 1839, i. p. 355; *Ic.* n. 24, p. 25, t. 4, f. 19–21; *Sow. Thes.* n. 68, p. 13, t. 3, f. 116; *Pfr. Pneum. Mon.* p. 356.
Helicina glabra, *Gould, in Proc. Bost. Soc.* i. p. 138.
Helicina orbiculata, *Sow. Thes.* n. 65, p. 13, t. 1, f. 33, 34.

Hab. Cuba; very common near Matanzas ?

A variety occurs with the spire somewhat raised, conoidal.

40. Helicina cornea.

Shell very similar to that of H. orbiculata (*Sow.*), thicker and darker, rather less depressed, with the columella and the lower part of the inner lip callous, and the outer lip very slightly notched behind the columella (*Sow*). Height about 3, breadth about 4 mill.

Helicina cornea, *Sow. Thes.* n. 66, p. 13, t. 1, f. 35, 36; *Pfr. Pneum. Mon.* p. 356.

Locality unknown.

41. Helicina rotunda.

Shell subglobose, rounded, thick, smooth, rose-coloured; spire inflated, with the apex acuminated; whorls 6, very little convex; aperture narrow, semilunate; labrum thin, slightly reflexed; columella thickened, callous, with a distant triangular impression on the centre; columellar angle of the aperture emarginated, sinuous. Length 7, breadth 8 mill. (*Orb.*)

Helicina rotunda, *Orb. Moll. Cub.* i. p. 252, t. 21, f. 1–3; *Sow. Thes.* n. 69, p. 13, t. 3, f. 111; *Pneum. Mon.* p. 357.

Hab. Cuba (Sagra).

42. Helicina rustica.

Shell conoidally-depressed, thin, obliquely and slightly ribbed, pale horn-coloured; spire shortly conoidal, rather blunt; whorls $3\frac{1}{2}$, moderately convex, last depressed, not descending anteriorly, nearly flat beneath; aperture very oblique, broadly semiovate; columella short, perpendicular, simple, dilated backward into a circumscript glassy callus; peristome simple, straight, with the basal margin almost rectilinear. Height 2, greatest breadth $3\frac{2}{3}$, least br. 3 mill.

Helicina pallida, *Pfr. in Z.* f. *M.* 1848, p. 86. (Not *Gould.*)
Helicina rustica, *Pfr. Ic.* n. 25, p. 26, t. 9, f. 26–29; *Pneum. Mon.* p. 357.

Hab. Tahiti.

43. Helicina inconspicua.

Shell minute, depressed-conoidal, thin, scarcely shining, smooth, fuscous; spire very shortly conoidal, rather blunt; whorls $3\frac{1}{2}$, scarcely convex, last somewhat depressed, rounded, not descending anteriorly, slightly convex beneath; aperture oblique, semiovate; columella receding, sending off from its base an impressed arcuated line, which surrounds the whitish, inflated

callus; peristome simple, straight. Height 2, greatest breadth 3, least br. 2½ mill.

Helicina inconspicua, *Pfr. in Z.* f. *M.* 1848, p. 86; *Ic.* n. 26, p. 26, t. 9, f. 18–21; *Pneum. Mon.* p. 357.

Hab. Tahiti.

§ 6. *Peristome not toothed, straight, sharp; shell depressed, keeled.*

44. Helicina zonata.

Shell orbicular, depressed above, moderately convex beneath, thin, fragile, very faintly striated, yellow, with a blood-red band above; spire scarcely convex, depressed; last whorl strongly keeled; aperture oblique, angulated above; columella indistinct, somewhat turgid; peristome simple, thin. Height 2, breadth 3½‴. (*Lesson.*)

Helicina zonata, *Less. Voy. Coquille. Zool.* ii. p. 350? *Pfr. Pneum. Mon.* p. 358.

Hab. The island of Oualan.

45. Helicina villosa.

Shell orbicular, rather lenticular, thin, pellucid, horn-coloured, sharply keeled, covered with a thin periostraca, which is fringed and hairy on the keel; spire slightly raised, mucronated; whorls 5, rather flat, sculptured with three spiral ridges above the keel, last whorl moderately convex and smooth beneath; aperture rather triangular; columella very short, forming an acute angle with the peristome, which is simple; basal callus shining, surrounded with an arcuated white line. Height 3, greatest breadth 5½, least br. 4½ mill.

Helicina villosa, *Anton, Verzeichn.* p. 53, n. 1937; *Pfr. Ic.* n. 27, p. 27, t. 5, f. 31–34; *Pneum. Mon.* p. 358.
Helicina pilosa, *Sow. Thes.* n. 58, p. 12, t. 3, f. 121, 122.

Hab. Opara.

§ 7. *Peristome not toothed, expanded; shell subglobose, not keeled; spire small.*

46. Helicina globosa. B. M.

Shell rather globose, solid, striated spirally, opaque, yellowish-white; spire convex, mucronated; whorls 7, nearly flat, last inflated; aperture oblique, entire, semiovate, somewhat triangular; columella arcuated, flattened; peristome thickened, shortly expanded, with the margins joined by a very thin callus. Operculum shelly, rather thin, pearly-white externally,

pale fuscous internally. Height 17, greatest breadth 20, least br. 16 mill.

Helicina globosa, *Gray, in Zool. of Beech. Voy.* p. 145, t. 38, f. 22; *Sow. Thes.* n. 21, p. 5, t. 1, f. 24; *Pfr. Ic.* n. 34, p. 31, t. 5, f. 7, 8; *Pneum. Mon.* p. 358.

β. Smaller, with 6 whorls. (*Pfr. Ic.* t. 5, f. 16, 17.)

Helicina mucronata, *Menke, MSS.*

Hab. Haiti (Sallé).

47. Helicina Cumingiana.

Shell subglobose, rather thin, closely sculptured with slight longitudinal plaits, flesh-coloured, dotted and varied with red; spire short, conoidal, rather blunt; whorls 5½, nearly flat, last inflated, angulated obsoletely; aperture rather perpendicular, semiovate; base of the columella dilated, curved forward, slightly truncated, forming backwards a callus, which is thick at its base and diffused above; peristome somewhat thickened, shortly expanded, white. Height 16½, greatest breadth 21, least br. 17½ mill.

Helicina Cumingiana, *Pfr. in Proc. Z. S.* 1848, p. 121; *Ic.* n. 35, p. 31, t. 6, f. 13, 14; *Pneum. Mon.* p. 359.

Locality unknown.

48. Helicina adspersa. B. M.

Shell conic-globose, solid, rather smooth, sometimes sculptured above with several obsolete spiral lines, whitish, painted with irregular dotty rufous bands; spire conic, rather pointed; whorls 5, the upper ones flattened, the last two convex, last scarcely descending anteriorly; aperture triangular, reddish-brown within, higher than broad; base of the columella thickened, lessened forward, forming an obtuse angle with the peristome, which is simple, spreading, basal callus diffused, white. Operculum rather solid, semiovate, dark chestnut-coloured externally, pearly internally. Height 11½, greatest breadth 15, least br. 13 mill.

Helicina adspersa, *Pfr. in Wiegm. Arch.* f. *Naturg.* 1839, i. p. 354; *Sow. Thes.* n. 25, p. 6, t. 3, f. 124; *Reeve, Conch. Syst.* t. 186, f. 4; *Pfr. Ic.* n. 36, p. 32, t. 1, f. 11; *Pneum. Mon.* p. 359.

Helicina variegata, *Orb. Moll. Cub.* i. p. 242, t. 19, f. 1–4.

Helicina marmorata, *Orb. Moll. Cub.* i. p. 244, t. 19, f. 9–12?

β. Flesh-coloured, varied with darker dots.

γ. Rather uniformly bluish-brown above, white, with a single narrow brown band beneath. (*Sow. Thes.* t. 3, f. 125; *Pfr. Ic.* t. 1, f. 12–14.)

δ. Uniformly yellow. (*Sow. Thes.* t. 3, f. 115; *Pfr. Ic.* t. 1, f. 15.)
ε. Yellow, with a single bluish-brown band above the middle. (*Sow. Thes.* t. 3, f. 103; *Reeve, Conch. Syst.* t. 186, f. 3; *Pfr. Ic.* t. 1, f. 16.)

Helicina ornata, *Féruss. Mus.* (*Jay, Catal.* 1850, p. 262.)

ζ. Uniformly white. (*Pfr. Ic.* t. 1, f. 17.)

Hab. Cuba.

49. Helicina rostrata.

Shell globose-conoidal, scarcely shining, decussated under a lens with obsolete wrinkles and spiral striæ, whitish or yellowish, girdled with two rose-coloured or purplish-violaceous bands, of which the upper one is broader; apex shortly mucronate; whorls $5\frac{1}{2}$, slightly convex; columella callous, short, angulated at its base; aperture rather triangular, yellowish or shining fulvous within; peristome thickened, narrowly expanded, produced on the middle into a sharp beak. Height 11, breadth (excluding the beak) 15 mill. (*Mor.*)

Helicina rostrata, *Morelet, Test. Noviss.* ii. p. 17, n. 123; *Pfr. Mon. Pneum.* p. 361.

Hab. San Agostino, province of Vera Paz.

50. Helicina striata.

Shell nearly semiglobose, rather thin, very crowdedly striated obliquely, flesh-coloured; spire short, conoidal, slightly acuminated; whorls $5\frac{1}{2}$, rather flat, last scarcely descending; aperture semiovate, higher than broad; columella curved forward, terminating in a knot, which is dilated backwards into a circumscript yellow callus; peristome simple, shortly expanded, with the upper margin somewhat depressed. Height $8\frac{1}{2}$, greatest breadth 13, least br. 11 mill.

Helicina striata, *Lam. Hist.* vi. p. 103, n. 2; *Ed. Désh.* viii. p. 158; *Gray, in Zool. Journ.* i. p. 71; *Delessert, Recueil*, t. 27, f. 1; *Pfr. Ic.* n. 38, p. 33, t. 5, f. 24–27; *Pneum. Mon.* p. 361.

Hab. Portorico.

51. Helicina Tuncki.

Shell conic-subglobose, rather thin, very minutely obliquely striated under a lens, scarcely shining, yellow, clouded with rose-colour, or dirty fuscous-flesh-coloured; spire conoidal, rather blunt; whorls $5\frac{1}{2}$, nearly flat, last more convex on both sides, obsoletely angulated on the periphery; aperture oblique, semiovate; columella slightly curved, marked with a perpendicular impressed line, terminating in a slight knot, dilated back-

ward into a callus, which gradually becomes thinner; peristome broadly expanded, with the upper margin somewhat sinuate, Height 9, greatest breadth 13½, least br. 9 mill.

Helicina Tuncki, *Pfr. in Proc. Z. S.* 1848, p. 121; *Ic.* n. 37, p. 33. t. 9, f. 1, 2; *Pneum. Mon.* p. 361.

Hab. San Yago, New Granada (*Tunck*).

52. Helicina neritella. B. M.

Shell depressed-conoidal, rather thin, very minutely striated, opaque, white or yellowish, often marked with two brown bands, or with broad reddish-brown bands, which are articulated and marbled with white; spire conoidal, with the apex rather pointed; whorls 5, scarcely convex, enlarging rapidly, last depressed, scarcely descending; aperture very oblique, entire, triangular, as high as broad; columella somewhat concave at its base; peristome simple, expanded, with the lower margin continued immediately into a thick basal callus. Height 9½, greatest breadth 14, least br. 11 mill.

Helicina neritella, *Lam. Hist.* vi. p. 103, n. 1; *Ed. Désh.* viii. p. 157; *Blainv. in Dict. Sc. Nat.* xx. p. 455; *Malacol.* t. 56, f. 2; *Gray, in Zool. Journ.* i. p. 65, t. 6, f. 2; *Désh. in Encycl. Méth.* ii. p. 268, n. 2; *Sow. Thes.* n. 26, p. 6, t. 2, f. 72–75; *Pfr. Ic.* n. 39, p. 34, t. 4, f. 5–8, t. 6, f. 18, t. 8, f. 9–12, t. 9, f. 3, 4; *Pneum. Mon.* p. 362.

Lister, *Hist.* t. 61, f. 59.

Helix, n. 29; *Schroet. Einleit.* ii. p. 185.

β. Smaller, variously coloured. (*Pfr. Ic.* t. 9, f. 32, 33.)

Helicina variabilis, *Guild. in Zool. Journ.* iii. p. 529, t. *Suppl.* 17, bis. f. 6–10; *Sow. Thes.* n. 28, p. 6, t. 2, f. 57, 58, t. 3, f. 106, 109, 129.

Hab. Barbadoes, West Indies.

53. Helicina Jamaicensis. B. M.

Shell subglobose-conic, rather thin, smooth, whitish, often with a single horn-coloured band, usually blood-red towards the apex; spire conic, slightly mucronated; whorls 5, moderately convex; last descending gradually, somewhat flattened beneath; aperture oblique, nearly triangular; columella terminating in an indistinct knot, dilated backward into a thick, semicircular callus; peristome thin, yellow internally, with the upper margin straight near its insertion, expanded on its lower part. Height 9, greatest breadth 12, least br. 10 mill.

Helicina Jamaicensis, *Sow. Thes.* n. 2, p. 2, t. 1, f. 3, 4; *Pfr. Ic.* n. 40, p. 35, t. 1, f. 22–26; *Pneum. Mon.* p. 363.

Hab. Jamaica.

54. Helicina aurantia. B. M.

Shell conic-globose, rather thin, smooth, shining, whitish or fulvous, girdled with a single yellow or fuscous band; spire short, conic, rather pointed; whorls scarcely 5, the upper ones flattened, last inflated, scarcely descending anteriorly; aperture nearly triangular, yellow within; columella short, flattened, terminating in a slight knot and produced backward into a thick orange-coloured callus; peristome thickened, spreading rectangularly, scarcely distinct from the columellar knot. Height $7\frac{1}{2}$, greatest breadth 10, least br. 8 mill.

Helicina aurantia, *Gray, in Zool. Journ.* i. p. 67, t. 6, f. 8; *Dêsh. in Lam. Hist.* viii. p. 161, n. 12; *Sow. Thes.* n. 1, p. 2, t. 1, f. 1, 2; *Reeve, Conch. Syst.* t. 186, f. 16; *Pfr. Ic.* n. 41, p. 36, t. 1, f. 18, 19; *Pneum. Mon.* p. 363.

Helicina pyrrhostoma, *Menke, Synops.* p. 79, ed. ii. p. 132.

Hab. Jamaica.

55. Helicina intusplicata.

Shell depressed-globose, rather thin, smooth, shining, flesh-coloured; spire shortly conoidal, with the apex scarcely acuminated; whorls nearly 5, moderately convex, enlarging rapidly, last rounded, somewhat flattened beneath; columella receding, flat, dilated backwards into a thin callus; aperture slightly oblique, semiovate, rather triangular, higher than broad, angulated near the columella and furnished with a plait, which internally runs down nearly to the margin; peristome simple, shortly expanded, the basal margin forming an angle with the columella. Height $7\frac{1}{2}$, greatest breadth 10, least br. $8\frac{1}{2}$ mill.

Helicina intusplicata, *Pfr. in Proc. Z. S.* 1850, p. 98; *Pneum. Mon.* p. 364.

Locality unknown.

56. Helicina tenuilabris.

Shell subglobose, rather solid, nearly smooth, varied and indistinctly banded with white and cinnamon-colour; spire shortly conoidal, rather pointed; whorls nearly 5, rather flat, last convex on both sides, scarcely descending anteriorly; aperture oblique, semiovate, sherry-coloured inside with pale bands; columella receding, narrow, dilated backwards into a thin callus, its base passing immediately into the thin, slightly-expanded peristome. Height 7, greatest breadth 10, least br. 9 mill.

Helicina tenuilabris, *Pfr. in Proc. Z. S.* 1848, p. 124; *Ic.* n. 42, p. 36, t. 8, f. 3, 4; *Pneum. Mon.* p. 364.

Locality unknown.

57. Helicina bulla.

Shell globose-conic, thin, sculptured under a lens with punctulated striæ, scarcely shining, diaphanous, glassy-whitish; spire middle-sized, conoidal, rather pointed; whorls 5, somewhat flattened, last rounded, slightly ascending anteriorly; columella short, arcuate, terminating externally in a slight knot, diffused backwards into a very thin, glassy callus; aperture oblique, semiovate, rather triangular; peristome dilated, broadly expanded, with the upper margin very slightly sinuate. Height $8\frac{1}{2}$, greatest breadth 13, least br. 10 mill.

Helicina bulla, *Pfr. in Proc. Z. S.* 1852; *Pneum. Mon.* p. 364.

Locality unknown.

58. Helicina Tamsiana.

Shell subglobose-turbinated, thin, spirally and minutely striated under a lens, slightly shining, pellucid, horn-coloured-reddish; spire conoidal, rather pointed; whorls 5, moderately convex, last obsoletely angulated, rather flattened beneath; aperture oblique, broadly semiovate; columella short, thread-shaped, somewhat receding, dilated backwards into a thin, whitish, diffused callus; peristome thin, white, angularly spreading, with the right margin dilated, basal margin rather narrow towards the columella. Height 6, greatest breadth 9, least br. $7\frac{3}{4}$ mill.

Helicina Tamsiana, *Pfr. in Z.* f. *M.* 1850, p. 192; *Ic.* n. 95, t. 10, f. 9–11; *Pneum. Mon.* p. 365.

Hab. Venezuela.

59. Helicina pellucida.

"A more transparent shell than H. zephyrina, with the columella nearly straight, and joining the outer lip at an angle." (*Sow.*) Height 8, breadth $8\frac{1}{2}$ mill.

Helicina pellucida, *Sow. Thess.* n. 40, p. 9, t. 3, f. 138; *Pfr. Pneum. Mon.* p. 365.

Hab. French Guiana.

60. Helicina globulosa.

Shell rather globose, smooth, white, with fuscous bands; spire short, blunt, inflated, with the apex acuminated; whorls 6, convex, the last large, globular; aperture semilunate; lip thin, slightly reflexed; basal callus occupying half the breadth of the mouth; anterior angle simple. Height 6, breadth 7 mill. (*Orb.*)

Helicina globulosa, *Orb. Moll. Cub.* i. p. 254, t. 21, f. 10, 11; *Sow. Thes.* n. 36, p. 8, t. 3, f. 127, 128; *Pneum. Mon.* p. 365.

Hab. Cuba.

61. Helicina sordida. B. M.

Shell globose-conoidal; whorls rounded, striated longitudinally. Operculum chestnut-coloured. Length $1\frac{1}{4}$, breadth $\frac{5}{16}$ inch. (*King.*)

Helicina sordida, *King, in Zool. Journ.* v. p. 339; *Pfr. Pneum. Mon.* p. 366.

Hab. Rio Janeiro.

62. Helicina arenicola.

Shell conoidally-depressed, spirally striated, whitish-yellow, varied with several series of pellucid, horn-coloured dots; spire convexly conoidal, rather pointed; suture impressed, bordered with white; whorls $5\frac{1}{2}$, almost flat, last rounded; aperture somewhat oblique, semiovate; columella very shortly curved, marked above with an impressed punctiform groove, dilated backwards into a rather thin callus; peristome simple, very narrowly reflexed. Height 5, greatest breadth $7\frac{1}{2}$, least br. $6\frac{2}{3}$ mill.

Helicina arenicola, *Morelet, Testac. Noviss.* i. p. 21, n. 50; *Pfr. Ic.* n. 99, t. 10, f. 24–27; *Pneum. Mon.* p. 366.

Hab. Sandy Spots near Sisal, Yucatan.

63. Helicina oleosa.

Shell depressed-turbinate, rather thin, faintly striated, diaphanous, oily-glittering, grayish-fulvous; spire conoidal, indistinctly pointed; whorls 5, convex, last large, somewhat convex beneath, impressed near the columella, which is short, rectilinear, slightly receding, thread-shaped, dilated into a very thin, slightly-granulated callus; aperture somewhat oblique, semiovate, rather triangular; peristome thin, narrowly reflexed, the basal margin forming an angle with the columella. Operculum rather solid, pearly. Height 5, greatest breadth $7\frac{1}{3}$, least br. scarcely 6 mill.

Helicina oleosa, *Pfr. in Proc. Z. S.* 1852; *Pneum Mon.* p. 366.

Hab. Haiti (Sallé).

64. Helicina parva. B. M.

Shell turbinate-depressed, rather solid, smooth, shining, lemon-coloured or reddish; spire shortly conoidal, with the apex rather pointed; whorls 4, scarcely convex, last rounded; aperture somewhat oblique, semiovate; columella very short, dilated backwards into a broad callus, its base forming an angle with the peristome, which is thin expanded. Height $3\frac{1}{2}$, greatest breadth $5\frac{2}{3}$, least br. 5 mill.

Helicina parva, *Sow. in. Proc. Z. S.* 1842, p. 8; *Thes.* n. 35, p. 8, t. 2, f. 82; *Pfr. Pneum. Mon.* p. 367.

Hab. Argao, Island of Zebu (H. Cuming).

65. Helicina flammea.

Shell globose-conoidal, very minute, striated, whitish, painted with crowded red flames; whorls 4–5, moderately convex; aperture semicircular; peristome thick, somewhat reflexed. Breadth $2\frac{1}{2}'''$. (*Quoy.*)

Helicina flammea, *Quoy & Gaim. Voy. Astrol.* ii. p. 193, t. 12. f. 1–5; *Désh. in Lam. Hist.* viii. p. 159, n. 6; *Pfr. Ic.* n. 45, a, p. 39 (i. 19, t. *A.* f. 12, from *Quoy*); *Pneum. Mon.* p. 367.
Helicina flameata, *Sow. Thes.* t. 1, f. 37–39 (from *Quoy*).

Hab. The Isle of Tonga.

66. Helicina uberta.

Shell semiglobose-conoidal, nearly smooth, rather thin, whitish, opaque; spire vaulted, with the apex rather pointed; suture scarcely impressed; whorls 4, nearly flat, enlarging rapidly, last constricted anteriorly, somewhat convex beneath; columella short, rather perpendicular, dilated backwards into a shining circumscript, lemon-yellow callus; aperture semiovate, rather triangular, entire; peristome thin, very narrow, slightly expanded. Height scarcely 4, greatest breadth 5, least br. $4\frac{1}{2}$ mill.

Helicina uberta, *Gould, in Proc. Bost. Soc.* 1847, p. 202; *Exped. Shells*, p. 37, ed. 1851, p. 94, f. 112; *Pfr. Pneum. Mon.* p. 367.
Helicini Huberti, ... *in Collect.*

Hab. Mani, Oahu, Sandwich Islands.

67. Helicina musiva.

Shell small, rather solid, subglobose, polished, rufous-greenish, rayed above with waving whitish lines; whorls 4, rounded; aperture lunate; peristome reflexed, whitish, rectangular at its base; columella straight. Height $\frac{1}{10}$, breadth $\frac{3}{20}$ inch (*Gould*).

Helicina musiva, *Gould, in Proc. Bost. Soc.* 1847, p. 201; *Exped. Shells*, p. 36, ed. 1851, p. 98, f. 107; *Pfr. Pneum. Mon.* p. 368.

Hab. The Islands of Manua and Upolu.

68. Helicina fragilis.

Shell conoidal, thin, very minutely and faintly striated, shining, diaphanous, horn-coloured-reddish or uniformly yellowish; whorls 6, moderately convex; columella short, callous, joined with the basal margin by a prominent angle; peristome thickened, slightly reflexed. Height 6, breadth $5\frac{1}{2}$ mill. (*Mor.*)

Helicina fragilis, *Morelet, Test. Noviss.* ii. p. 17, n. 122; *Pfr. Pneum. Mon.* p. 368.

Hab. Peten, Guatemala.

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69. Helicina alata.

Shell globose-conic, thin, faintly striated, white, covered with a deciduous fuscous periostraca; spire conic, rather pointed; whorls $5\frac{1}{2}$, convex, last rounded, not descending, deeply impressed beneath near the circumscript columellar callus; columella simple, receding; aperture large, semicircular; peristome simple, thin, slightly expanded, with the margin produced into a rather broad wing below its insertion. Height $7\frac{1}{2}$, greatest breadth 9, least br. scarcely 8 mill.

Helicina alata, *Menke, MSS.*; *Pfr. in Z.* f. *M.* 1848, p. 87; *Ic.* n. 54, p. 43, t. 5, f. 18–20; *Pneum. Mon.* p. 368.
Helicina pannucea, *Morelet, Testac. Noviss.* i. p. 21, n. 52.

Hab. San Lins, province of Peten, Guatemala (Morelet); Mexico? (Menke).

§ 8. *Peristome not toothed, expanded; shell not keeled, rather globose; spire as high as the last whorl.*

70. Helicina sinuosa.

Shell globose-conic, solid, minutely striated concentrically, opaque, white; spire conic, pointed; suture impressed; whorls $6\frac{1}{2}$, flat, last slightly keeled, moderately convex beneath; aperture perpendicular, triangular, sinuate; columella short, flattened, terminating in a tooth-like knot, dilated backwards into a thin callus; peristome thickened, expanded; right margin sinuate, ascending, forming a channel with a callous knot, which is situated on the keel of the penultimate whorl. Height 11, greatest breadth 16, least br. $13\frac{1}{2}$ mill.

Helicina sinuosa, *Pfr. in Z.* f. *M.* 1850, p. 191; *Ic.* n. 94, t. 10, f. 7, 8; *Pneum. Mon.* p. 369.

Hab. Mexico.

71. Helicina Lanieriana.

Shell globose-turbinate, thin, sculptured with irregular oblique and crowded concentrical striæ, scarcely shining, pale yellow; spire conic, acutely mucronate; whorls 7, the first ones flat, the penultimate one moderately convex, last roundish, with the periphery angulated very indistinctly; columella short, rectilinear, receding, dilated backwards into a thin callus; aperture oblique, ovate, rather triangular; peristome simple, thin,

slightly expanded, basal margin forming an angle of 90° with the columella. Height 9, greatest breadth 12, least br. 10 mill.

Helicina Lanieriana, *Orb. Moll. Cub.* i. p. 245, t. 19, f. 13, 14; *Pfr. Pneum. Mon.* p. 369.

Hab. Cuba (D'Orbigny, Poey).

72. Helicina acuminata.

Shell globose-conic, solid, nearly smooth, shining (minutely concentrically striated under a lens), flesh-coloured-whitish; spire conic, pointed; suture fringed irregularly and slightly; whorls nearly 8, scarcely convex, last rounded; columella short, somewhat receding, slightly thickened, fuscous, dilated backwards into a shining yellow callus; aperture oblique, semiovate, rather triangular, yellow within; peristome thin, shortly expanded, basal margin forming an angle of 90° with the columella. Operculum rather thin, pearly. Height 15, greatest breadth 15½, least br. 13 mill.

Helicina acuminata, *Velasquez, MSS.; Poey, Mem. Hist. Nat. Cub.* i. t. 5, f. 13–16, ii. p. 112–119; *Pfr. Pneum. Mon.* p. 370.

Hab. Cuba.

73. Helicina turbinata.

Shell turbinate, rather solid, nearly smooth, opaque, uniformly white, or with a single brown band, sometimes cinnamon-coloured; spire turbinate, apex rather pointed; whorls 6, almost flat, last sometimes indistinctly angulated; aperture semilunate, somewhat triangular; columella short, arcuate, marked above with an impressed groove, terminating in a slight knot, thickened, dilated backwards into a white diffused callus; peristome slightly thickened, shortly expanded. Height 9⅔–11, greatest breadth 11–14, least br. 9⅔–12 mill.

Helicina turbinata, *Wiegm. Mus. Berol.; Menke, Synops.* ed. ii. p. 39; *Pfr. in Z.* f. *M.* 1848, p. 87; *Ic.* n. 46, p. 39, t. 4, f. 13–15, t. 7, f. 6, t. 8, f. 1, 2, t. 9, f. 31; *Pneum. Mon.* p. 370.
Helicina zephyrina, var., *Sow. Thes.* t. 3, f. 118.

Hab. Mexico.

74. Helicina zephyrina.

Shell conic-globose, rather solid, faintly striated, sculptured, under a lens, with very subtle concentric lines, opaque, slightly shining, pale flesh-coloured or whitish, with red bands; spire conic, pointed; whorls 6, moderately convex, last rounded, scarcely descending anteriorly; aperture oblique, nearly semicircular; columella shortly arcuate, impressed, dilated back-

wards into a small whitish callus, forming an indistinct angle with the peristome, which is simple and narrowly expanded. Height 10, greatest breadth 12, least br. 11 mill.

Helicina zephyrina, *Duclos, in Guér. Mag.* 1833, t. 21; *Sow. Thes.* n. 39, p. 9, t. 1, f. 25, 27; *Pfr. Ic.* n. 43, p. 37, t. 4, f. 16–18 (from Guérin), t. 7, f. 3, t. 8, f. 21; *Pneum. Mon.* p. 371.
Helicina Ambeliana, *Sow. Thes.* n. 38, p. 8, t. 1, f. 26.
Helicina zephirina, *Orb. Moll. Cub.* i. p. 246, t. 19, f. 15, 16?

Hab. Mexico; Cuba? (Orb. Sow.)

75. Helicina ampliata.

Shell conic, whitish (?), with a few excessively fine striæ of growth, otherwise smooth and shining; apex subacute; spire much elevated, with the outlines moderately curvilinear; whorls $5\frac{1}{2}$, a little convex, with a distinct suture; last whorl subangular, anteriorly subplanulate; aperture transversely much dilated, depressed in the upper part of the right side; labrum with a large thick deposit. This shell resembles H. Jamaicensis, Sow., but is much larger, much less globose, and more conic. Mean divergence about 90°; height 0.6, greatest breadth 0.67, least br. 0.57 inch. (*Ad.*)

Helicina ampliata, *Adams, Contrib. to Conch.* n. 7, p. 101; *Pfr. Pneum. Mon.* p. 371.

Hab. Jamaica.

76. Helicina tenuis.

Shell turbinate, extremely thin, scarcely striated, pellucid, horn-coloured-whitish, painted with three indistinct red bands; spire conic, pointed; whorls 6, scarcely convex, last not descending anteriorly, rather flat beneath; aperture nearly perpendicular, semiovate, somewhat triangular; columella short, terminating backwards in a slight tooth, dilated above into a white, shining, circumscript callus; peristome thin, spreading angularly, basal margin forming an angle with the columella. Height $8\frac{1}{2}$, greatest breadth 11, least br. 9 mill.

Helicina tenuis, *Pfr. in Proc. Z. S.* 1848, p. 124; *Ic.* n. 47, p. 40, t. 7, f. 33, 34; *Pneum. Mon.* p. 372.

β. Yellowish-white, with a single very narrow band on the middle of the last whorl, which is composed of yellow dots.

Hab. Yucatan; the variety from Mexico.

77. Helicina vernalis.

Shell globose-conic, thin, scarcely striated, granulated under a lens, shining, pellucid, lemon-yellow or whitish or rose-fulvous,

sometimes with purplish bands; spire conic, rather pointed; whorls 5½, moderately convex, last inflated, convex beneath; aperture somewhat oblique, semiovate, rather triangular; columella short, with a small tooth at its base, which is directed backwards, dilated above into a rather thick, circumscript callus; peristome thin, spreading angularly, dilated on the middle, with the basal margin scarcely arcuate. Operc. thin, chestnut-purplish. Height 7, greatest breadth 9⅔, least br. scarcely 8 mill.

Helicina vernalis, *Morelet, Testac. Noviss.* i. p. 20, n. 47; *Pfr. Ic.* n. 96, t. 10, f. 12–14; *Pneum. Mon.* p. 372.

Hab. Peten, Guatemala.

78. Helicina Oweniana.

Shell conic, thin, smooth, sculptured (under a lens) with very minute impressed striæ, which are oblique forward, shining, pellucid, straw-yellow, darker towards the summit; spire conic, with the apex rather blunt, chestnut-coloured; suture linear, bordered with white; whorls 6, flat, last not descending, rather flattened beneath; aperture slightly oblique, semiovate; columella short, grooved perpendicularly, dilated backwards into a very thin callus; peristome orange-coloured, spreading angularly, somewhat reflexed, with the two margins very faintly arcuate. Operculum thin, purplish. Height 7½, greatest breadth 9, least br. 7½ mill.

Helicina Oweniana, *Pfr. in Proc. Z. S.* 1848, p. 123; *Ic.* n. 48, p. 40, t. 7, f. 35, 36; *Pneum. Mon.* p. 373.

β. A little smaller, with the whorls more convex and the spire less raised.

Helicina coccinostoma, *Morelet, Testac. Noviss.* i. p. 19, n. 45.

Hab. Chiapas, Mexico (Ghiesbreght); the variety from Peten, Guatemala.

79. Helicina hæmastoma.

Shell conic-globose, rather solid, very minutely striated concentrically, slightly shining, yellowish-white, with a single broad violaceous band; spire semiglobose, with the apex acuminated, violaceous; whorls 5, the upper ones rather flat, the two last convex, last not descending; aperture nearly triangular, of the same colour within, shining; columella short, straight, terminating backwards in a knot; peristome somewhat thickened, expanded, fiery-red; basal callus circular, brownish-orange-coloured. Operculum dark blood-red. Height 7, greatest breadth 9, least br. 8 mill.

Helicina hæmastoma, *Moricand, Mémoire*, iii. p. 36, t. 3, f. 6, 7;

Sow. Thes. n. 3, p. 2, t. 1, f. 5, 6, t. 3, f. 98; *Pfr. Ic.* n. 51, p. 42, t. 1, f. 20, 21; *Pneum. Mon.* p. 373.

Hab. Brazils.

80. Helicina Reeveana.

Shell conic, rather solid, minutely reticulated (under a lens), with distinct striæ of growth, and very crowded oblique impressed lines, slightly shining, whitish, clouded, and interruptedly banded with reddish-brown; spire raised, with the apex rather pointed; suture impressed; whorls 6, moderately convex, last angulated, scarcely more convex beneath; aperture nearly semiovate, chestnut-coloured within; columella very short, spreading horizontally into a small white callus; peristome white, spreading angularly, with the basal margin slightly arcuate, joined on the outside rather angularly with the columella. Height 6, greatest breadth $8\frac{1}{2}$, least br. $7\frac{1}{3}$ mill.

Helicina Reeveana, *Pfr. in Proc. Z. S.* 1848, p. 123; *Ic.* n. 49, p. 42, t. 8, f. 5, 6; *Pneum. Mon.* p. 374.

Hab. Cuba.

81. Helicina campanula.

Shell conic, rather bell-shaped, solid, smooth, shining, lemon-yellow; spire elevated, convex, acuminate; whorls 6, rather flat, last descending anteriorly, somewhat constricted behind the aperture, flattened beneath; aperture oblique, semilunate, somewhat triangular; columella shortly receding, rather truncated at its lower extremity, dilated backwards into a shining semicircular callus; peristome simple, thin, shortly expanded, with the basal margin nearly rectilinear. Operculum fulvous. Height 7, greatest breadth $8\frac{1}{3}$, least br. $7\frac{1}{3}$ mill.

Helicina campanula, *Pfr. in Proc. Z. S.* 1848, p. 120; *Ic.* n. 50, p. 41, t. 9, f. 12, 13; *Pneum. Mon.* p. 374.

Hab. Cuba.

82. Helicina tropica. B. M.

Shell globose, solid, smooth, white; spire vaulted, rather acuminate; whorls 5, moderately convex, last inflated, not descending anteriorly; aperture nearly perpendicular, rather semicircular, much higher than broad; columella short, terminating in a knot, dilated backwards into a diffused white callus, passing immediately into the peristome, which is thick, reflexed, sometimes duplicate. Height $6\frac{2}{3}$, greatest breadth 8, least br. 7 mill.

Helicina tropica, *Jan, MSS.; Pfr. Ic.* n. 44, p. 37, t. 4, f. 9, 10; *Pneum. Mon.* p. 374.

β. Yellow or reddish, sometimes banded (*Pfr. Ic.* t. 8, f. 22).

Helicina Ambeliana, *Sow. Thes.* t. 1, f. 19.

Hab. Texas.

Perhaps identical with the following species?

83. Helicina orbiculata. B. M.

Shell subglobular; spire not prominent, but more than convex, lateral line somewhat convex; whorls 5, obsoletely striated across, regularly rounded; colour pale-greenish, yellowish, or slightly tinted with reddish, particularly on the body, and margined above by an obsolete white line, on the middle of the body a white vitta revolves, sometimes obscure or wanting; aperture acute above, regularly rounded at the base, and extending from the centre of the revolutions or base of the column, to an equidistance between the base and apex of the spire; base of the columella slightly projecting into an obtuse angle; exterior lip whitish, reflected. Operculum simple, not spiral, yellowish-brown, minutely granulated. Length $\frac{1}{5}$ inch. (*Say.*)

Olygyra orbiculata, *Say, in Philad. Journ.* i. p. 283; *Amer. Conch.* t. 46, f. 1–3; *Ed. Chenu* (*Bibl. Conch.* iii.), p. 56, t. 15, f. 2, 2*a*, 2*e*.

Helicina orbiculata, *Blainv. in Dict. Sc. Nat.* xx. p. 456? *Gray, Zool. Journ.* i. p. 70; *Pfr. Pneum. Mon.* p. 375. (Not Sowerby.)

Hab. East Florida (Say).

84. Helicina Hanleyana.

Shell globose-conic, rather solid, sculptured with somewhat distant impressed concentric striæ, scarcely diaphanous, shining, fulvous-flesh-coloured; spire shortly conoidal, rather blunt; whorls 5, scarcely convex, last rounded, slightly descending anteriorly; aperture little oblique, nearly semicircular; columella extremely short, terminating outwards in a small tooth, dilated backwards into a thin, whitish, diffused callus; peristome white, imperceptibly expanded, slightly thickened internally, passing into the tooth of the columella. Height $5\frac{2}{3}$, greatest breadth $7\frac{1}{2}$, last br. $6\frac{1}{3}$ mill.

Helicina Hanleyana, *Pfr. in Proc. Z. S.* 1844, p. 122; *Ic.* n. 45, p. 38, t. 9, f. 7, 8; *Pneum. Mon.* p. 375.

Hab. New Orleans (Sallé).

85. Helicina flavida.

Shell globose-conic, concentrically minutely striated, opaque, white or yellow, uniform or reddish towards the summit, often painted with red bands; spire elevated, rather pointed; whorls 6–$6\frac{1}{2}$, rather flattened, last not descending anteriorly, flattened

beneath; aperture oblique, entire, nearly semicircular; columella short, arcuate, dilated backwards into a thin callus; peristome white, narrowly expanded. Operculum thin, chestnut-coloured. Height 6, greatest breadth 7, least br. 6 mill.

Helicina flavida, *Menke, Synops.* p. 79, ed. ii. p. 132; *Sow. Thes.* n. 41, p. 9, t. 3, f. 117, 134; *Pfr. Ic.* n. 52, p. 42, t. 1, f. 31, 32, t. 3, f. 28–30; *Pneum. Mon.* p. 376.
Helicina Ambieliana, *Boissy, in Guérin, Mag.* 1835, t. 68; *Potiez et Mich. Gal. de Douai*, i. p. 228, t. 23, f. 1, 2.
Helicina trossula, *Morelet, Test. Noviss.* i. p. 19, n. 44.

Hab. Cuba; Tobago, Mexico; Peten, Guatemala.

86. Helicina pygmæa.

Shell top-shaped, whitish, smooth, striated longitudinally and grooved transversely (under a lens); whorls 5–6, convex, last a little larger than the rest, the first ones yellowish; aperture oblique, small, yellow like the callus of the columella; peristome solid; apex acute. Height 5, breadth of the base 5 mill. (*Pot. & Mich.*)

Helicina pygmæa, *Pot. & Mich. Gal. Douai*, i. p. 230, t. 23, f. 9, 10; *Pfr. Pneum. Mon.* p. 377.

Hab. St. Domingo.

87. Helicina trochulina.

Shell conic, thin, smooth, shining, pellucid, yellow; spire regularly conic, with the apex pointed; suture slightly bordered; whorls 6, scarcely convex, last imperceptibly descending anteriorly, rather flat beneath; aperture oblique, nearly triangular; columella shortly receding, simple, dilated backwards into a very thin callus; peristome thin, very narrowly expanded, white and somewhat callous within; right margin nearly rectilinear, basal margin slightly sinuate, forming a rather effused angle with the columella. Height 4½, greatest breadth 5, least br. 4½ mill.

Helicina trochulina, *Orb. Moll. Cub.* i. p. 249, t. 20, f. 10–12? *Sow. Thes.* n. 42, p. 9, t. 3, f. 105? *Pfr. Ic.* n. 90, p. 66, t. 9, f. 34–36; *Pneum. Mon.* p. 377.

Hab. Cuba (Sagra); Portorico (Moritz).

88. Helicina Antoni.

Shell globose-conic, thin, slightly and irregularly wrinkled, somewhat shining, yellowish-horn-coloured; spire conoidal, blunt; whorls 4, convex, last indistinctly angulated, rather flattened beneath, slightly impressed on the centre; aperture oblique, semiovate; columella simple, shortly receding, forming an

angle of about 90° with the peristome, which is thin and narrowly expanded; basal callus extremely thin, diffused. Operculum thin, pale horn-coloured. Height $2\frac{1}{4}$, greatest breadth 3, least br. $2\frac{2}{3}$ mill.

Helicina Antoni, *Pfr. in Z.* f. *M.* 1848, p. 88; *Ic.* n. 55, p. 44, t. 5, f. 35–38; *Pneum. Mon.* p. 377.

Hab. Honduras (Dyson).

§ 9. *Peristome not toothed, expanded; shell not keeled, depressed.*

89. Helicina maxima.

Shell globose-depressed, rather solid, smooth, whitish; spire very short, scarcely mucronate; whorls $5\frac{1}{2}$, rather flat, enlarging rapidly, the last one depressed, more convex beneath; aperture nearly perpendicular, large, semiovate; columella terminating in an indistinct knot, dilated backwards into a semicircular callus of the same colour; peristome simple, expanded, and slightly reflexed. Height 15, greatest breadth 25, least br. 21 mill.

Helicina maxima, *Sow. in Proc. Z. S.* 1842, p. 6; *Thes.* n. 37, p. 8, t. 1, f. 11; *Pfr. Ic.* n. 56. p. 44, t. 6, f. 3, 4; *Pneum. Mon.* p. 378.

Hab. Jamaica.

90. Helicina nobilis.

Shell depressed globose-conic, thick and solid; white beneath and at the end of the last whorl, otherwise rufous or dark brownish-red; very smooth, the striæ of growth being very light; sometimes with a few very light spiral striæ; apex obtuse; spire convex-conic; whorls nearly $4\frac{1}{2}$, subplanulate, with a rather deep suture; last whorl much depressed or even sinuate between the periphery and suture at its termination; aperture compressed above, expanded laterally; lip rather thick, moderately reflected along the middle only; with a notch like that of H. maxima, Sow. Mean divergence 130°; greatest breadth 0.9; least br. 0.73; height 0.55 inch. (*Adams.*)

Helicina nobilis, *Adams, in Ann. Lyc. New York*, v. n. 2, p. 49; *Contrib. to Conch.* n. 8, p. 133? *Pfr. Pneum. Mon.* p. 378.

Hab. Jamaica.

91. Helicina citrina. B. M.

Shell rather depressed, thin, faintly striated, shining, diaphanous, lemon-yellow; spire short, somewhat conoidal; whorls 5, rather flat, increasing rapidly, the last one more or less depressed and

slightly angulated, more convex beneath; aperture scarcely oblique, broadly semiovate; columella short, arcuate, truncated at its lower extremity, forming an angle with the peristome, which is simple and narrowly expanded. Operculum shelly externally, purplish internally, with an elevated white rib. Height 10, greatest breadth 16, least br. 13 mill.

Helicina citrina, *Grateloup, in Act. Soc. Linn. Bord.* xi. p. 413, t. 3, f. 15; *Pfr. Ic.* n. 57, p. 45, t. 3, f. 4–9, t. 7, f. 1, 2; *Pneum. Mon.* p. 379.

Helicina polita, *Sow. in Proc. Z. S.* 1842, p. 7; *Thes.* n. 33, p. 8, t. 2, f. 76–81; *Reeve, Conch. Syst.* t. 186, f. 9.

β. Smaller; uniformly yellow, or with a white band along the suture; height 6, greatest breadth 8½, least br. 7 mill. B. M.

Hab. The Philippine Islands, Luzon, Mindanao, Zebu (H. Cuming).

92. Helicina similis.

Intermediate between H. Guadaloupensis and H. polita, from the latter of which it differs in being lightly striated, and rather more angular. Height 8½, breadth 13½ mill. (*Sow.*)

Helicina similis, *Sow. in Proc. Z. S.* 1842, p. 8; *Thes.* n. 34, p. 8, t. 3, f. 130; *Pfr. Pneum. Mon.* p. 379.

Hab. Guadeloupe.

93. Helicina Antillarum.

Shell depressed, thin, faintly striated and crossed by very minute oblique striæ, slightly pellucid, rufous, orange-coloured or greenish-yellow, often girdled with an articulated pale band; spire short, rather blunt; whorls nearly 5, scarcely convex, enlarging rapidly, last depressed, moderately convex beneath; aperture oblique, nearly semicircular; columella short, terminating externally in an indistinct knot, forming a very obtuse angle with the peristome, which is thin, expanded, whitish or fulvous; basal callus thin, circumscript. Operculum violaceous-chestnut-coloured. Height 10, greatest breadth 16, least br. 14 mill.

Helicina Antillarum, *Sow. Thes.* n. 29, p. 7, t. 2, f. 68–70; *Reeve, Conch. Syst.* t. 186, f. 15; *Pfr. Ic.* n. 58, p. 46, t. 3, f. 1–3; *Pneum. Mon.* p. 380.

Hab. West Indies.

94. Helicina Guadaloupensis.

Shell depressed, rather solid, obliquely striated, crossed by very minute concentric striæ, rather opaque, flesh-coloured-yellowish; spire slightly raised, somewhat nipple-shaped; whorls nearly 5, rather flat, increasing gradually, last slightly angulated,

depressed, moderately convex beneath; aperture oblique, nearly triangular; columella short, curved forward and forming a knot; peristome whitish or orange-coloured, very narrowly expanded, thickened internally, with the margins nearly rectilinear; basal callus widely diffused, thin. Operculum chestnut-coloured-purplish. Height $7\frac{1}{2}$, greatest breadth 13, least br. 11 mill.

Helicina Guadaloupensis, *Sow. in Proc. Z. S.* 1842, p. 8; *Thes.* n. 31, p. 7, t. 2, f. 65, 66; *Pfr. Ic.* n. 59, p. 46, t. 3, f. 10–12; *Pneum. Mon.* p. 380.

Hab. Guadeloupe.

95. Helicina fulva.

Shell depressed-conoidal, rather solid, striated concentrically, slightly shining, yellowish-horn-coloured; spire conoidal, rather pointed; whorls $5\frac{1}{2}$, flattened, last more convex, not descending anteriorly, rather flat beneath; aperture somewhat oblique, entire, broadly semiovate; columella short, arcuate, forming above a right angle with the thin basal callus, slightly angulated at its lower part; peristome thickened, white, scarcely a little expanded. Operculum shelly. Height 8, greatest breadth 11, least br. $9\frac{2}{3}$ mill.

Helicina fulva, *Orbigny, Synops.* p. 28; *Voy. Amér.* p. 358, t. 46, f. 1–5; *Sow. Thes.* n. 61, p. 12, t. 1, f. 23; *Pfr. Ic.* n. 60, p. 47, t. 2, f. 24, 25; *Pneum. Mon.* p. 381.

Hab. Chiquitos, Bolivia.

96. Helicina Brasiliensis.

Shell depressed, conoidal, rather thin, closely striated concentrically, yellowish or flesh-coloured; spire short, conoidal, rather pointed; whorls $4\frac{1}{2}$, scarcely convex, last obsoletely angulated; aperture somewhat oblique, semiovate, a little higher than broad; columella perpendicular, sending backwards an arcuate impressed line, which surrounds the basal callus which is extremely thin; columella terminating in an indistinct knot; peristome white, thickened and expanded, often duplicate. Operculum thin, chestnut-coloured-reddish. Height $4\frac{1}{2}$, greatest breadth $7\frac{1}{3}$, least br. 6 mill.

Helicina Brasiliensis, *Gray, in Zool. Journ.* i. p. 66, t. 6, f. 5; *Dêsh. in Lam. Hist.* viii. p. 160, n. 10; *Sow. Thes.* n. 62, p. 12, t. 1, f. 29; *Pfr. Ic.* n. 61, p. 47, t. 7, f. 10, 11; *Pneum. Mon.* p. 381.

β. Larger; height 6, greatest breadth 9, least br. 7 mill. (*Pfr. Ic.* t. 2, f. 22, 23).

Helicina Menkeana, *Philippi, in Z.* f. *M.* 1847, p. 126.
Helicina fasciata, *Deless. Recueil*, t. 27, f. 2 (not *Lamarck*).

Hab. Brazils.

97. Helicina oresigena.

Shell orbicular, rather depressed, thin, irregularly striated, yellowish; spire conical; whorls 4; aperture semilunate; columella rounded; labrum thick. Height $6\frac{1}{2}$, breadth 9 mill. (*Orb.*)

Helicina oresigena, *Orbigny, Synops.* p. 28; *Voy. Amér.* p. 359, t. 46, f. 10–16; *Sow. Thes.* n. 64, p. 13, t. 1, f. 28; *Pfr. Pneum. Mon.* p. 382.

Hab. The province Yungas, Bolivia.

98. Helicina sylvatica.

Shell orbicular, convex, conic, elevated, thick, faintly striated beneath (above ?) smooth internally, yellowish; spire conic, raised; whorls 5; aperture semilunate; columella thick, rounded; labrum thick, slightly reflected, whitish. Height 6, breadth 7 mill. (*Orb.*)

Helicina sylvatica, *Orbigny, Synops.* p. 28; *Voy. Amér.* p. 359, t. 46, f. 17–20; *Sow. Thes.* n. 63, p. 12, t. 1, f. 30; *Pfr. Pneum. Mon.* p. 382.

Hab. St. Cruz and Chiquitos, Bolivia.

99. Helicina fasciata. B. M.

Shell ovate, depressed, rather thin, faintly striated obliquely, slightly shining, whitish or yellowish, variously painted with purplish zones and denticulated bands; spire shortly conoidal, with the apex mucronulate; whorls $4\frac{1}{2}$–5, rather flat, enlarging rapidly, last broad, depressed, rather flat beneath; columella shortly arcuate; aperture very oblique, nearly triangular, broader than high; peristome somewhat thickened, expanded, with the basal margin straight, continued into the basal callus, which is thick, but diffused towards the upper side. Operculum thin, horny. Height 5–6, greatest breadth 7–10, least br. 6–8 mill.

Helicina fasciata, *Lam. Hist.* vi. p. 103, n. 3; *Ed. Désh.* viii. p. 153; *Gray, in Zool. Journ.* i. p. 65, t. 6, f. 3; *Désh. in Encycl. Méth.* ii. p. 268, n. 3; *Potiez & Mich. Gal. Douai*, i. p. 229, t. 23, f. 3, 4; *Pfr. Ic.* n. 62, p. 48, t. 3, f. 26–35; *Pneum. Mon.* p. 382.
Helicina picta, *Fer. Mus.*; *Sow. Thes.* n. 27, p. 6, t. 2, f. 56, t. 3, f. 140, 141.
Helicina rotellaris, *Menke, Synops.* p. 80, ed. ii. p. 133.

Hab. Portorico and Martinique.

The colouring and size of this species are most variable.

100. Helicina versicolor.

Shell depressed, thin, smooth, varied with yellow and green, purplish towards the summit; spire somewhat raised, indistinctly nipple-shaped; whorls $4\frac{1}{2}$, rather flat, enlarging rapidly, last broad, somewhat depressed, scarcely descending anteriorly; aperture diagonal, semiovate-triangular; columella extremely short, dilated backwards into a thick, semicircular, shining, white callus; peristome shortly expanded, with the basal margin slightly reflexed and continued immediately into the columella. Operculum rather membranous, chestnut-coloured. Height $5\frac{1}{2}$, greatest breadth 8, least br. $6\frac{3}{4}$ mill.

Helicina versicolor, *Pfr. in Z.* f. *M.* 1850, p. 77; *Pneum. Mon.* p. 383.

Hab. Haiti (Sallé).

101. Helicina Dysoni. B. M.

Shell orbiculate-conoidal, rather solid, faintly striated, slightly shining, flesh-coloured, painted above with two narrow darker bands; spire raised, apex rather blunt; whorls 5, moderately convex, increasing slowly, the last scarcely descending anteriorly, rather flattened beneath; aperture oblique, semiovate, higher than broad; columella short, rather truncated at its lower extremity, dilated backwards into a white callus, which is surrounded with a faintly-impressed line; peristome simple, very narrowly reflexed, with both margins slightly curved. Height $5\frac{1}{2}$, greatest breadth 8, least br. 7 mill.

Helicina Dysoni, *Pfr. in Proc. Z. S.* 1848, p. 121; *Ic.* n. 63, p. 49, t. 3, f. 36–39, t. 8, f. 24, 29; *Pneum. Mon.* p. 384.

β. Smaller; dark flesh-coloured, with two narrow red bands above, and a single whitish band on the periphery; height $4\frac{1}{2}$, greatest breadth 7, least br. $6\frac{1}{4}$ mill.

γ. Fulvous reddish, with two narrow darker bands above.

δ. Smaller; yellow, with two narrow fulvous bands above, and a single whitish band on the periphery; height $4\frac{1}{3}$, greatest breadth 6, least br. $5\frac{1}{3}$ mill.

Hab. Cumana, Honduras (Dyson).

102. Helicina sublævigata.

Shell conoidally-depressed, rather solid, nearly smooth, slightly shining, uniformly reddish, or whitish, with a violaceous band beneath; spire shortly conoidal, with the apex rather blunt; whorls 5, scarcely convex, last broader, indistinctly angular on the periphery; aperture diagonal, rather semiovate; columella short, simple, dilated backwards into a rather thick, circum-

script callus; peristome simple, shortly expanded, with the basal margin nearly rectilinear, somewhat toothed at its junction with the columella. Operculum thin, horny. Height 5, greatest breadth 8, least br. $6\frac{1}{2}$ mill.

Helicina sublævigata, *Pfr. in Proc. Z. S.* 1852; *Pneum. Mon.* p. 384.

Hab. The New Hebrides Islands.

103. Helicina diaphana.

Shell conoidally-depressed, thin, striated, faintly and obliquely, diaphanous, slightly shining, fulvous-yellowish; spire somewhat elevated, with the apex blunt; whorls 4, rather flat, last very indistinctly angulated; columella extremely short, terminating in a slight knot, dilated backwards into a circumscript callus, which appears granulated under a lens; aperture slightly oblique, semilunate; peristome simple, shortly expanded, with the basal margin slightly arcuate, passing gradually into the knot of the columella. Operculum thin, yellowish. Height $3\frac{1}{3}$, greatest breadth 5, least br. $4\frac{3}{4}$ mill.

Helicina diaphana, *Pfr. in Proc. Z. S.* 1850, p. 98; *Pneum. Mon.* p. 384.

Hab. Honduras (Dyson).

104. Helicina Küsteriana.

Shell depressed, rather thin, sculptured with oblique striæ and with more distant, somewhat hairy, elevated, concentric lines, diaphanous, pale horn-coloured; spire short, blunt; whorls scarcely $3\frac{1}{2}$, moderately convex, last depressed, not descending anteriorly, somewhat convex beneath; aperture oblique, semiovate, rather triangular; columella extremely short, simple, dilated backwards into a glassy, circumscript callus, passing immediately into the peristome, which is simple, thin, slightly expanded. Height $2\frac{1}{2}$, greatest breadth $4\frac{2}{3}$, least br. 4 mill.

Helicina Küsteriana, *Pfr. in Z.* f. *M.* 1848, p. 88; *Ic.* n. 64, p. 50, t. 9, f. 22–25; *Pneum. Mon.* p. 385.

Hab. Tahiti.

105. Helicina Louisiadensis. B. M.

Shell conoidally-depressed, rather solid, shining, spirally striated under a lens, reddish-horn-coloured; spire conoid-convex, rather pointed; whorls 4, moderately convex, last rounded, somewhat depressed, slightly grooved and callous beneath, behind the short columella; aperture oblique, semiovate, rather triangular; peristome simple, thin, with both margins narrowly expanded.

Operculum nearly triangular, pale. Height $2\frac{3}{4}$, greatest breadth $4\frac{1}{2}$, least br. $3\frac{2}{3}$ mill.

Helicina Louisiadensis, *Forbes, in Voy. Rattlesnake, App.* p. 382, t. 3, f. 5; *Pfr. Pneum. Mon.* p. 385.

Hab. Round Island in Coral Haven, Louisiade Archipelago (Macgillivray).

§ 10. *Peristome not toothed, expanded; shell slightly keeled.*

106. Helicina Sowerbyana.

Shell depressed-trochiform, rather thin, spirally grooved with impressed lines, white; spire conic, rather pointed; whorls 6, nearly flat, the last slightly keeled, more convex beneath; aperture somewhat oblique, nearly triangular; columella thin, terminating in a knot, dilated backwards into an extremely thin callus; peristome simple, spreading angularly, with the upper margin sinuate. Height 14, greatest breadth 21, least br. 17 mill.

Helicina Sowerbyana, *Pfr. in Proc. Z. S.* 1848, p. 124; *Ic.* n. 65, p. 50, t. 6, f. 9, 10; *Pneum. Mon.* p. 385.

Hab. Guatemala (Lattre).

107. Helicina occidentalis. B. M.

Shell depressed, rather thin, slightly granulated by oblique lines, whitish-yellow, clouded and varied with reddish-brown; spire short, conoidal, rather mucronate; whorls 6, nearly flat, last depressed, angulated, almost flat beneath; aperture very oblique, triangular; columella short, terminating in a slight knot, dilated backwards into a diffused callus; peristome expanded, reflexed, with the upper margin depressed. Operculum semiovate, blackish-chestnut-coloured. Height $10\frac{1}{2}$, greatest breadth 19, least br. 15 mill.

Helicina fasciata, *Guilding, in Linn. Trans.* xiv. 2, p. 339 (not *Lamarck*).

Helicina occidentalis, *Guild. in Zool. Journ.* iii. p. 529, t. 15, f. 6–10; *Dêsh. in Lam. Hist.* viii. p. 164, n. 19; *Sow. Thes.* n. 30, p. 7, t. 2, f. 86, 87; *Pfr. Ic.* n. 66, p. 51, t. 6, f. 19, 20 (i. 19, t. *A.* f. 13, from *Guild.*); *Pneum. Mon.* p. 386.

Pachytoma occidentalis, *Swains. Malac.* p. 337 (p. 184, f. 28).

β. Smaller; with more distinct red bands.

Hab. The Island of St. Vincent, 2000 feet above the level of the ocean.

108. Helicina amœna.

Shell nearly semiglobose, rather solid, striated obliquely, and sculptured with distant impressed spiral lines, slightly shining, rose-coloured, varied with yellow or white; spire convex, slightly mucronate; whorls $5\frac{1}{2}$, scarcely convex, last keeled below the middle, flattened beneath; aperture oblique, nearly triangular, yellow within; columella short, marked with a slight perpendicular groove, angular at its lower extremity, dilated backwards into a thin, diffused callus; peristome simple, with the upper margin broadly expanded, basal margin reflexed. Operculum rather thin, chestnut-coloured. Height $9\frac{1}{2}$, greatest breadth 15, least br. $12\frac{1}{2}$ mill.

Helicina amœna, *Pfr. in Proc. Z. S.* 1848, p. 119; *Ic.* n. 73, p. 55, t. 8, f. 13–15; *Pneum. Mon.* p. 386.
Helicina purpureo-flava, *Morelet, Testac. Noviss.* i. p. 19, n. 46.

Hab. Honduras, and the provinces of Peten and Vera Paz (Morelet).

109. Helicina goniostoma.

Shell subglobose, smooth, rather solid, dark brown, with a single broad white band along the suture; spire somewhat depressed, conic; aperture large, broad, angulated by the obtuse keel of the last whorl; labrum white, produced downwards. Height 9, breadth 12 mill. (*Sow.*)

Helicina goniostoma, *Sowerby, in Zool. of Beech. Voy.* p. 145, t. 38, f. 21; *Pfr. Pneum. Mon.* p. 387.

Locality unknown.

110. Helicina lutea.

Shell orbiculate, convex, solid, thick, minutely striated above, gold-yellow; spire somewhat elevated; last whorl globose, slightly keeled on the periphery; aperture oblique, semicircular, shining and white within; columella white, sinuate; peristome simple, free. Height 3, breadth 5‴. (*Less.*)

Helicina lutea, *Less. Voy. Coquille*, p. 350, t. 13, f. 10; *Pfr. Pneum. Mon.* p. 387.

Hab. Port Dorey, New Guinea.

111. Helicina rotella.

Shell small, smooth, angulated, scarcely keeled, with the outer lip very little spread, and the inner lip expanded; columella rather angulated. Height 7, breadth 11 mill. (*Sow.*)

Helicina rotella, *Sow. Thes.* n. 57, p. 12, t. 3, f. 135, 136; *Pfr. Pneum. Mon.* p. 387.

Locality unknown.

112. Helicina Gouldiana. B. M.

Shell depressed-globose, rather conic above, orbiculate, indistinctly angulated, yellow or reddish-brown, striated spirally; spire prominent; whorls 5, flattened; base imperforate; aperture rather lunate, angulated inferiorly; peristome thickened, slightly reflexed, white. Height $4\frac{1}{2}$, greatest breadth 6, least br. $5\frac{1}{4}$ mill. (*Forb.*)

Helicina Gouldiana, *Forbes, in Voy. Rattlesnake, App.* p. 382, t. 3, f. 3; *Pfr. Pneum. Mon.* p. 388.

Hab. "Two Isles," north-east coast of Australia (Macgillivray).

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113. Helicina Lindeni.

Shell globose-conic, rather thin, very minutely striated and punctured, rather diaphanous, pale yellow or flesh-coloured; spire conic, rather pointed; whorls 6, scarcely convex, last inflated, obsoletely angulated, not descending anteriorly; aperture somewhat oblique, semiovate, higher than broad; columella slightly arcuate, terminating outward in a small tooth, dilated backwards into a small, thin callus; peristome narrowly expanded and somewhat reflexed. Height $8\frac{1}{3}$, greatest breadth $11\frac{1}{2}$, least br. 10 mill.

Helicina Lindeni, *Pfr. in Proc. Z. S.* 1848, p. 123; *Ic.* n. 67, p. 52, t. 8, f. 22, 23; *Pneum. Mon.* p. 388.

Hab. Tapinapa, Mexico (Linden).

114. Helicina Salleana.

Shell conoidal, somewhat depressed, thin, faintly striated and indistinctly granulated, diaphanous, shining, purplish-brown; spire conoidal, rather pointed; whorls nearly 5, moderately convex, last broader, slightly angulated on the periphery; aperture somewhat oblique, nearly triangular; columella rather straight, receding shortly; peristome thin, with the margins united by a broad semiovate basal callus, upper margin slightly expanded, basal margin reflexed into a broad membranaceous, blackish-rufous plate, forming an angle with the columella. Operculum nearly triangular, whitish. Height $5\frac{1}{2}$, greatest breadth 9, least br. $7\frac{1}{3}$ mill.

Helicina Salleana, *Pfr. in Proc. Z. S.* 1852; *Pneum. Mon.* p. 388.

Hab. Haiti (Sallé).

115. Helicina Columbiana. B. M.

Shell conic, rather solid, very closely striated spirally, slightly shining, flesh-coloured above, sometimes with a single broad fuscous band, yellowish beneath; spire regularly conic; whorls 5, moderately convex, last keeled, not descending; aperture semicircular, somewhat angular; columella short, thinner at its lower extremity, separated from the white, shining basal callus by a faintly-impressed perpendicular line; peristome thickened, white, narrowly expanded, with arcuate margins. Operculum semicircular, shining, chestnut-coloured. Height 8, greatest breadth 11, least br. 9½ mill.

Helicina Columbiana, *Philippi, in Z.* f. *M.* 1847, p. 126; *Pfr. Ic.* n. 68, p. 52, t. 2, f. 1-3, t. 9, f. 5, 6; *Pneum. Mon.* p. 388.

β. Larger; yellowish, with darker points, whitish beneath (*Pfr. Ic.* t. 7, f. 7).

Hab. Columbia.

116. Helicina gonochila. B. M.

Shell conoidally subglobose, rather thin, sculptured above with indistinct spiral striæ and points, slightly shining, fulvous-flesh-coloured; spire short, conoidal, rather pointed; whorls 4½, scarcely convex, last slightly keeled on the periphery, marked with a yellow band, more convex, and with more distinct spiral striæ beneath; aperture slightly oblique, semiovate, rather triangular, higher than broad; columella somewhat receding, sending off, at its upper part, a short impressed curved line, sharply toothed at its lower extremity; peristome white, spreading broadly and rectangularly; basal margin nearly rectilinear, forming a rather acute angle with the columella. Height 6½, greatest breadth 10, least br. 8 mill.

Helicina gonochila, *Pfr. in Proc. Z. S.* 1845, p. 121; *Ic.* n. 69, p. 53, t. 7, f. 20, 21; *Pneum. Mon.* p. 389.

Hab. Venezuela.

117. Helicina elongata.

Shell conic, solid, sculptured with rather distant raised spiral striæ, slightly shining, white; spire conic, with the apex yellow, acuminated; whorls 7, the upper four angulated, stair-shaped, the two following rather flat, the last one moderately convex, slightly keeled; columella short, nearly perpendicular, dilated backwards into a rather thick, circumscript callus; aperture very oblique, roundish-triangular, yellow within; peristome thin, expanded, with the upper margin somewhat sinuate, basal margin towards the columella straight, sharp. Operculum

shelly, yellowish. Height $7\frac{1}{2}$, greatest breadth 8, least br. 7 mill.

Helicina elongata, *Orbigny, Moll. Cub.* i. p. 251, t. 20, f. 16–18; *Sow. Thes.* n. 44, p. 9. t. 3, f. 110; *Pfr. Pneum. Mon.* p. 389.
Helicina scopulorum, *Morelet, Testac. Noviss.* i. p. 20, n. 49; *Pfr. Ic.* n. 98, t. 10, f. 21–23.
Helicina marmorea, *Velasquez, MSS.*
Trochatella elongata, *Pfr. in Z.* f. *M.* 1848, p. 82.

Hab. Isla de Pinos, near Cuba.

118. Helicina pyramidalis.

Shell conic, top-shaped, thin, diaphanous, smooth, marked only towards the summit with several imperceptible transverse striæ, uniformly pale yellow; spire elevated, conic, with the apex pointed; whorls 7, flat, contiguous, obtusely keeled; aperture triangular; peristome simple, sharp, scarcely reflexed; columella slightly callous, flattened at its lower extremity and terminating in a scarcely perceptible knot. Height 6, breadth 6 mill. (*Orb.*)

Helicina conica, *Orbigny, Moll. Cub.* i. p. 249, t. 20, f. 7–9 (not *Pfr.*).
Helicina pyramidalis, *Sow. Thes.* n. 43, p. 9, t. 3, f. 104; *Pfr. Pneum. Mon.* p. 390.

Hab. Cuba (Sagra).

119. Helicina maculata.

Shell trapezoidal, slightly angulated, conic above and beneath, smooth, thin, mottled and banded, with red or brown, on a pink or yellowish ground; external lip reflexed, slightly expanded, thin towards the base of the columella, which is rather callous, lessened downwards. Operculum horny. Height $6\frac{1}{2}$, breadth 9 mill. (*Sow.*)

Helicina maculata, *Sow. Thes.* n. 32, p. 7, t. 3, f. 131; *Pfr. Pneum. Mon.* p. 391.

Hab. South America.

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120. Helicina substriata.

Shell depressed-ovate, yellowish, with a white keel-like band on the centre, above convex, with a few distant spiral striæ, beneath rather convex, smooth; peristome thickened, reflected; columella and inner lip callous (white?) Height 6, breadth 8 mill. (*Gray.*)

Helicina substriata, *Gray, in Zool. Journ.* i. p. 66, t. 6, f. 4; *Dësh. in Lam. Hist.* viii. p. 160, n. 9; *Sow. Thes.* t. 1, f. 22; *Pfr. Ic.* n. 92, p. 67, t. 9, f. 30 (from *Gray*); *Pneum. Mon.* p. 391. *Browne, Jamaic.* t. 40, f. 4; Cochlea, n. 14?

Hab. West Indies.

121. HELICINA CONVEXA.

Shell convex-orbicular, solid, smooth, shining, white; spire vaulted, slightly mucronated; whorls $4\frac{1}{2}$, the last two moderately convex, last very indistinctly angulated, scarcely descending anteriorly; aperture entire, oblique, semilunate; columella shortly arcuate, dilated backwards into a thick callus of the same colour, peristome thickened, narrowly expanded, with the basal margin separated from the columella by a very slight notch. Height $4\frac{1}{2}$, greatest breadth $6\frac{1}{2}$, least br. $5\frac{3}{4}$ mill.

Helicina convexa, *Pfr. in Proc. Z. S.* 1848, p. 120; *Ic.* n. 70, p. 53, t. 9, f. 9, 10; *Pneum. Mon.* p. 391.

Locality unknown.

122. HELICINA MINUTA. B. M.

Shell conoidally-depressed, striated, red or straw-yellow; spire rather convex, slightly acuminated; whorls 4, rather flat, the last somewhat descending, subangulated, nearly flat beneath; aperture very oblique, triangular; columella exceedingly short, simple, dilated backwards into a shining callus of the same colour; peristome somewhat thickened, slightly expanded. Operculum thin, reddish. Height $2\frac{2}{3}$, greatest breadth $4\frac{1}{2}$, least br. $3\frac{2}{3}$ mill.

Helicina minuta, *Sow. in Proc. Z. S.* 1842, p. 7; *Thes.* n. 70, p. 13, t. 1, f. 40, 41; *Pfr. Ic.* n. 71, p. 54, t. 4, f. 24–27; *Pneum. Mon.* p. 391.

Helicina discolor, *Muhlf. MSS. in Anton, Verz.* p. 53, n. 1938. β.

β. With the spire a little more raised.

Helicina flammeata, *Muhlf. MSS. in Anton, Verz.* p. 53, n. 1938.

Hab. The Islands of Opara and Cheatora.

§ 11. *Peristome not toothed, expanded; shell sharply keeled.*

123. HELICINA UNIFASCIATA.

Shell rather depressed ovate, whitish, with a rather sharp keel-like ridge, and narrow brown band round the centre of the last whorl; spirally rather rib-like striated, the striæ convex, rather distant; spire conical convex; beneath convex; peristome

thickened, reflected, the columellar angle of the aperture with a blunt notch. Axis $\frac{9}{20}$, diameter $\frac{6}{10}$ of an inch. (*Gray.*)

Helicina unifasciata, *Gray, in Zool. Journ.* i. p. 69, t. 6, f. 12; *Désh. in Lam. Hist.* viii. p. 163, n. 16; *Sow. Thes.* t. 1, f. 21; *Pfr. Ic.* n. 91, p. 67, t. 9, f. 37 (from *Gray*); *Pneum. Mon.* p. 392.

Locality unknown.

124. Helicina Moreletiana.

Shell depressed-conoidal, rather thin, minutely sculptured with raised spiral striæ, opaque, reddish-yellow; spire short, conoidal, pointed; whorls 5, flat, last sharply keeled, not descending, convex beneath; aperture very oblique, triangular; columella short, arcuate, dilated backwards into a thick, white, circumscript callus; peristome slightly thickened, white, with the upper margin widely expanded and reflected, basal margin slightly arcuate, broadly reflected. Height 10, greatest breadth $21\frac{1}{2}$, least br. 18 mill.

Helicina Moreletiana, *Pfr. in Z.* f. *M.* 1850, p. 191; *Ic.* n. 93, t. 10, f. 1, 2; *Pneum. Mon.* p. 392.

Locality unknown.

125. Helicina Kieneri. B. M.

Shell conoidal, rather thin, obliquely striated, crossed very minutely with crowded spiral striæ, whitish, marbled with fuscous-violaceous; spire convexly conoidal, pointed; whorls $5\frac{1}{2}$, scarcely convex, last compressedly keeled, more convex beneath; columella receding, flattened, impressed above, thickened at its lower extremity and dilated into a thin callus; aperture oblique, entire, semiovate, higher than broad; peristome simple, thin, broadly expanded. Height $11\frac{1}{2}$, greatest breadth 16, least br. 13 mill.

Helicina Kieneri, *Pfr. in Proc. Z. S.* 1848, p. 122; *Ic.* n. 72, p. 54, t. 6, f. 17; *Pneum. Mon.* p. 393.

Hab. Caraccas (Sallé).

Nearly allied to H. neritella, *Lam.*, but differing by its sculpture and keel.

126. Helicina Moquiniana.

Shell trochiform, keeled, whitish-yellow, with orange-coloured dots and bands; whorls 6, convexly depressed, the upper ones fulvous, smooth, the last two regularly striated spirally, with the interstices indistinctly granulated, last whorl keeled and painted with two rows of small spots, convex beneath, striated spirally,

yellowish, with oblique, arcuate rays of orange-coloured dots; labrum thick, reflected. Operculum shelly, blood-red externally. Height 11, breadth 15 mill. (*Récl.*)

Helicina Moquiniana, *Récluz, in Journ. Conch.* 1851, ii. p. 212, t. 5, f. 8; *Pfr. Pneum. Mon.* p. 393.

Hab. Salomon's Islands.

127. Helicina straminea.

Shell conic, somewhat bell-shaped, thin, decussated (under a lens) with spiral lines and striæ of growth; whorls 7, rather flat, the upper ones disjoined by a deep suture, lemon-coloured, last whorl pale, sharply keeled, slightly convex beneath; keel bordered with white and inferiorly with a yellow band; aperture oblique, rather triangular; columella angulated and callous at its lower extremity; peristome slightly thickened and reflexed. Height 8, breadth 8 mill. (*Mor.*)

Helicina straminea, *Morelet, Testac. Noviss.* ii. p. 18, n. 125; *Pfr. Pneum. Mon.* p. 393.

Hab. The Guajaibon Mountains, Cuba.

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128. Helicina caracolla. B. M.

Shell depressed, lenticular, thin, closely spirally striated (several striæ being more elevated), pellucid, lemon-yellow or purplish; spire scarcely raised, with the apex rather pointed; whorls $4\frac{1}{2}$, moderately convex, last sharply keeled, not descending anteriorly; aperture very oblique, triangular; columella short, dilated above into a thin callus, its lower extremity passing immediately into the peristome, which is reflected, and furnished with a white internal lip. Height 8, greatest breadth 16, least br. 13 mill.

Helicina caracolla, *Moricand, Mém. Genève*, vii. p. 444, t. 2, f. 24, 25; *Pfr. Ic.* n. 74, p. 56, t. 3, f. 13–16; *Pneum. Mon.* p. 394.

Helicina caracolla, *Désh. in Lam. Hist.* viii. p. 158, n. 5; *Sow. Thes.* n. 51, p. 10, t. 2, f. 88, 89.

Hab. Almada, Brazils.

129. Helicina agglutinans. B. M.

Shell depressed-conic, rather thin, closely striated, yellow; spire broadly conic, pointed; whorls 5, rather flat, last keeled, scarcely descending anteriorly, flattened beneath; aperture very oblique, rather quadrangular; columella short, slightly holed, terminating outward angularly, dilated into a thin callus; peristome thin, with the upper margin scarcely expanded, basal margin

narrow reflected; keel of young specimens winged with agglutinated decomposed particles of rocks. Operculum shelly, trapezoidally semiovate. Height 9½, greatest breadth 17, least br. 15 mill.

Helicina agglutinans, *Sow. in Proc. Z. S.* 1842, p. 7; *Thes.* n. 52, p. 11, t. 2, f. 83–85; *Reeve, Conch. Syst.* ii. t. 186, f. 11, 12; *Pfr. Ic.* n. 75, p. 56, t. 2, f. 16–18; *Pneum. Mon.* p. 394.

Hab. The Philippine Islands of Guimaras, Bohol, Panay (H. Cuming).

130. Helicina acutissima. B. M.

Shell depressed-conic, rather solid, closely striated, obliquely opaque, uniformly yellow or painted with several red bands; spire broadly conic, pointed; whorls scarcely 5, flat, sharply keeled, the last very little descending below the keel; aperture very oblique, quadrangular, of the same colour within; columella short, dilated, with a very indistinct knot at its external extremity; peristome expanded, angulated on the right side, upper margin thin, basal margin somewhat thickened; basal callus thin, diffused. Operculum shelly, trapeziform. Height 5½–8½, greatest breadth 9½–16, least br. 14 mill.

Helicina acutissima, *Sow. in Proc. Z. S.* 1842, p. 6; *Thes.* n. 48, p. 10, t. 2, f. 92–95; *Reeve, Conch. Syst.* t. 186, f. 2; *Sow. Conch. Man. Ed.* ii. f. 532, 533; *Pfr. Ic.* n. 76, p. 57, t. 2, f. 7–11; *Pneum. Mon.* p. 395.

Hab. The Philippine Islands of Bohol, Siquijor, Zebu (H. Cuming).

131. Helicina oxytropis.

Shell depressed-turbinate, solid, keeled, slightly striated and wrinkled, opaque, pale yellow; spire shortly conoidal, with the apex very pointed; suture bordered; whorls 5½, rather flattened, last keeled compressedly and sharply, moderately convex beneath; aperture very oblique, lunate, rather triangular; columella declivious, angularly terminating outward, dilated backwards into a thin callus; peristome sharp, spreading narrowly. Operculum thin, shelly, rather trapeziform. Height 5, greatest breadth 12, least br. 10 mill.

Helicina oxytropis, *Gray, in Zool. of Beech Voy.* p. 146, t. 38, f. 24; *Pfr. Pneum. Mon.* p. 395.
Helicina oxystoma, *Sow. Thes.* n. 50, p. 10, t. 3, f. 139.

Locality unknown.

132. Helicina pallida.

Shell lenticular, rather solid, yellowish-gray, striated inequally, covered with a very thin periostraca; spire depressed; whorls

5, keeled, flattened; aperture semilunate, callous near the columella; labrum moderately reflected. Height $\frac{3}{20}$, breadth $\frac{3}{10}$ inch. (*Gould.*)

Helicina pallida, *Gould, in Proc. Bost. Soc.* 1847, p. 202; *Exped. Shells*, p. 37, ed. 1851, p. 96, f. 113; *Pfr. Pneum. Mon.* p. 396.

Hab. Feejee Islands.

133. Helicina acuta.

Shell depressed-conic, rather solid, closely striated obliquely and slightly granulated, opaque, yellow, with a single red band above; spire conoidal, pointed, mucronated; whorls nearly 6, rather flat, sharply keeled, last scarcely descending anteriorly, rather flat beneath; aperture very oblique, nearly triangular; columella nearly perpendicular, extremely short, angulated at its lower extremity, dilated above into a very thin callus; peristome simple, orange-coloured, with the upper margin almost straight, basal margin slightly thickened. Height $7\frac{1}{2}$, greatest breadth 15, least br. $12\frac{2}{3}$ mill.

Helicina acuta, *Pfr. in Proc. Z. S.* 1848, p. 119; *Ic.* n. 77, p. 58, t. 8, f. 16, 17; *Pneum. Mon.* p. 396.

Hab. Sibonga, island of Zebu (H. Cuming).

134. Helicina Lazarus.

Shell depressed-conic, rather solid, coarsely striated and granulated, opaque, lemon-yellow; spire elevated, rather pointed; whorls $5\frac{1}{2}$, nearly flat, last keeled, equally moderately convex on both sides, scarcely descending anteriorly; aperture very oblique, almost triangular; columella extremely short, angularly terminating outward, sending backwards an arcuated line, which surrounds the thin basal callus; peristome simple, thin, scarcely expanded. Height 5, greatest breadth $9\frac{2}{3}$, least br. $8\frac{1}{2}$ mill.

Helicina Lazarus, *Sow. in Proc. Z. S.* 1842, p. 7; *Thes.* n. 53, p. 11, t. 2, f. 91; *Pfr. Ic.* n. 78, p. 58, t. 7, f. 18, 19; *Pneum. Mon.* p. 396.

Hab. The island of Luzon (H. Cuming).

135. Helicina trochiformis. B. M.

Shell trochiform, solid, faintly striated obliquely, opaque, pale straw-yellow; spire conic, pointed; whorls $4\frac{1}{2}$, flat, sharply and somewhat prominently keeled, last nearly flat beneath, descending anteriorly; aperture very oblique, nearly triangular; columella short, simple; peristome thin, with both margins expanded, scarcely angulated on the right side. Height 5, greatest breadth 8, least br. 7 mill.

Helicina trochiformis, *Sow. in Proc. Z. S.* 1842, p. 7; *Thes.* n. 49, p. 10, t. 2, f. 90; *Pfr. Ic.* n. 79, p. 59, t. 2, f. 12, 13; *Pneum. Mon.* p. 397.

Hab. The Philippine island of Negros (H. Cuming).

136. Helicina viridis. B. M.

Shell depressed-ovate, angularly keeled, thin, polished, green, the keel whitish-yellow; spire convex, beneath rather convex; peristome scarcely thickened, reflected, yellow, inner lip scarcely visible, very thin; base of the columella callous, white. Axis $\frac{6}{20}$, diameter $\frac{11}{20}$ of an inch. (*Gray.*)

Helicina viridis, *Lam. Hist.* vi. p. 103, n. 4, *Ed. Dêsh.* viii. p. 158; *Gray, in Zool. Journ.* i. p. 67, t. 6, f. 7; *Dêsh. in Encyl. Méth.* ii. p. 268, n. 4; *Delessert, Recueil*, t. 27, f. 3; *Reeve, Conch. Syst.* t. 186, f. 8; *Sow. Thes.* n. 54, p. 11, t. 2, f. 67; *Pfr. Ic.* n. 80, p. 59, t. 9, f. 11 (from *Gray*); *Pneum. Mon.* p. 397.

Pachytoma viridis, *Swainson, Malacol.* p. 337.

Hab. Haiti (Lamarck); Cuba (Sowerby).

137. Helicina tæniata.

Shell nearly discoidal, faintly striated, yellowish-white, with a single red band; spire slightly raised, conoidal; whorls $4\frac{1}{2}$, last very large, strongly keeled, very convex beneath; aperture semilunate, rather ovate; peristome simple, white, very slightly reflexed; columella depressed, terminating in a small tooth. Breadth $4\frac{1}{2}'''$. (*Quoy.*)

Helicina tæniata, *Quoy & Gaim. Voy. Astrol. Zool.* ii. p. 194, t. 12, f. 6–10; *Dêsh. in Lam. Hist.* viii. p. 159, n. 7; *Sow. Thes.* t. 2, f. 49–51; *Pfr. Ic.* n. 85a, p. 63 (i. 19), t. *A.* f. 14 (from *Quoy*); *Pneum. Mon.* p. 398.

β. Smaller; rather globular, with two or three red bands (*Quoy & Gaim.* t. 11, f. 34–38).

Hab. The island of Vanikoro, the variety from Tonga.

138. Helicina rhodostoma.

Shell depressed, rather thin, very minutely granulated and punctured, varied with rufous and whitish; spire shortly conoidal, rather pointed; whorls 5, scarcely convex, enlarging rapidly, last sharply keeled, a little more convex beneath; aperture oblique, rather triangular; columella short, flat, dilated, spreading above into a thin callus, receding behind the axis with its lower extremity, and terminating in a sharp recurved spine; peristome thin, angularly expanded, blood-red. Operculum solid, reddish. Height 8, greatest breadth 15, least br. $10\frac{1}{4}$ mill.

Helicina rhodostoma, *Gray, in Zool. Journ.* i. p. 68, t. 6, f. 9; *Desh. in Lam. Hist.* viii. p. 161, n. 13; *Reeve, Conch. Syst.* t. 186, f. 5; *Sow. Thes.* n. 59, p. 12, t. 2, f. 171; *Pfr. Ic.* n. 81, p. 60, t. 7, f. 4, 5; *Pneum. Mon.* p. 398.
Oligyra rhodostoma, *Swains. Malacol.* p. 337.

β. Uniformly white, with the peristome of the same colour.

Hab. Guadeloupe.

139. Helicina bicolor.

Shell depressed-conoidal, rather thin, sharply keeled, faintly striated and very minutely granulated and punctured under a lens, whitish, with two fuscous bands, the one above, the other below the keel; spire short, conoidal, pointed; whorls 5, moderately convex, enlarging rapidly, last not descending, more convex beneath; columella fuscous, short, slightly arcuate, dilated, terminating in a spine-shaped angle, expanded backwards into a fuscous, circumscript callus; aperture diagonal, broad, nearly triangular; peristome dilated, flat, expanded, fuscous internally, upper margin slightly sinuate, basal margin nearly rectilinear. Height 6, greatest breadth 11½, least br. 9 mill.

Helicina bicolor, *Pfr. in Proc. Z. S.* 1852; *Pneum. Mon.* p. 398.

Hab. Tahiti.

140. Helicina angulata. B. M.

Shell somewhat depressed, rather thin, striated spirally, yellowish or rose-coloured; spire conoidal, with the apex rather pointed; suture slightly impressed; whorls 4½, scarcely convex, last sharply keeled, not descending anteriorly, rather inflated beneath, bordered with red externally and internally near the aperture; aperture slightly oblique, semiovate; columella short, slightly receding, terminating in a tooth-shaped angle; peristome white, spreading rectangularly, continued into the tooth of the columella; basal callus extremely thin. Height 6½, greatest breadth 10½, least br. 9 mill.

Helicina angulata, *Sow. Thes.* n. 60, p. 12, t. 2, f. 61, t. 3, f. 100; *Pfr. Ic.* n. 82, p. 60, t. 2, f. 14, 15; *Pneum. Mon.* p. 399.

Hab. Brazils.

141. Helicina Candeana.

Shell depressed, smooth, with the outline rather rounded; whorls angulated, strongly keeled on the periphery; outer lip expanded, reflected, slightly acuminated and lessened in the

middle; operculum horny. Height 8, breadth 14–15 mill. (*Sow.*)

Helicina Candeana, *Orbigny, in Sow. Thes.* n. 55, p. 11, t. 3, f. 97, 99; *Pfr. Pneum. Mon.* p. 399.

Hab. Honduras.

142. Helicina concentrica. B. M.

Shell depressed-trochiform, rather thin, very minutely sculptured, under a lens, with longitudinal and oblique striæ, and marked on both sides with raised spiral lines, sharply keeled, slightly shining, flesh-coloured-fuscous, varied with white; spire conoidal, somewhat nipple-shaped; whorls $4\frac{1}{2}$, scarcely convex, the last more convex above and beneath; aperture oblique, rather axe-shaped, broader than high; columella slightly grooved, shortly arcuate, thickened at its lower extremity, and dilated backwards into a white circumscript callus; peristome simple, narrowly expanded, with the basal margin immediately continued into the columella. Operculum thin, chestnut-coloured. Height scarcely 6, greatest breadth 10, least br. 8 mill.

Helicina concentrica, *Pfr. in Proc. Z. S.* 1848, p. 120; *Pfr. Ic.* n. 83, p. 61, t. 7, f. 28, 29; *Pneum. Mon.* p. 400.

β. With the spire a little more raised; height 6, greatest breadth 9, least br. $7\frac{2}{3}$ mill.

γ. Larger; with the raised spiral lines indistinct below the keel; height $7\frac{1}{2}$, greatest breadth $12\frac{1}{2}$, least br. $10\frac{1}{2}$ mill. (*Pfr. Ic.* t. 8, f. 18, 19.)

δ. Larger; with the keel more compressed, peristome somewhat thickened and produced into a beak; height 9, greatest breadth nearly 15, least br. $12\frac{1}{2}$ mill.

Hab. Venezuela; variety β from New Granada (Lattre); γ from Mirador, Mexico (Galeotti); δ from Caraccas (Sallé).

143. Helicina carinata. B. M.

Shell orbiculate-conoidal, rather thin, sculptured with crowded spiral striæ and ridges, diaphanous, slightly shining, lemon-yellow; spire conoidal, pointed; whorls $4\frac{1}{2}$, moderately convex, last keeled on the periphery, not descending anteriorly, a little more convex beneath; aperture oblique, rather triangular, higher than broad; columella extremely short, perpendicular, terminating in a slight knot, dilated backwards into a thin, circumscript callus; peristome white, shortly expanded. Height $4\frac{3}{4}$, greatest breadth $7\frac{1}{2}$, least br. $6\frac{3}{4}$ mill.

Helicina carinata, *Orbigny, Synops.* p. 28; *Voy. Amér.* p. 360, t. 46, f. 6–9; *Sow. Thes.* n. 56, p. 11, t. 3, f. 96 (not t. 2, f. 60); *Pfr. Ic.* n. 84, p. 62, t. 7, f. 22, 23; *Pneum. Mon.* p. 400.

Hab. The province of Yungas, Bolivia.

144. Helicina striatula.

Shell trochiform-depressed, fulvous or whitish, marked with regular longitudinal furrows; whorls 6, convex, last keeled; suture bordered and crenulated; aperture small, angulated, modified by a tooth, which is placed on the columellar margin; peristome whitish, slightly reflexed; apex blunt. Height 4, breadth 7 mill. (*P. & M.*)

Helicina striatula, *Potiez & Michaud, Gal. Douai*, i. p. 231, t. 23, f. 13, 14; *Pfr. Pneum. Mon.* p. 401.

Locality unknown.

145. Helicina Stanleyi. B. M.

Shell lenticular, convex above and beneath, orbicular, sharply keeled, fuscous-flesh-coloured, striated spirally; spire blunt; whorls $4\frac{1}{2}$, moderately convex, last imperforated beneath, smooth and white on the centre; aperture obliquely sublunate, angulated; peristome simple, thin. Height 5, greatest breadth $6\frac{1}{2}$, least br. 6 mill. (*Forb.*)

Helicina Stanleyi, *Forbes, in Voy. Rattlesnake, App.* p. 381, t. 3, f. 4; *Pfr. Pneum. Mon.* p. 401.

Hab. Duchateau Isles, Louisiade Archipelago (Macgillivray).

146. Helicina fulgora.

Shell conoidal, thin, obliquely striated, keeled, pale horn-coloured, elegantly varied above with whitish and red flames; spire convexly-conoidal, pointed; whorls 5, scarcely convex, last sharply and compressedly keeled on the periphery, more convex beneath; aperture slightly oblique, semiovate, rather triangular; columella short, dilated into a thin callus, forming an angle of 90° with the peristome, which is thin and very slightly expanded; operculum pale, semiovate. Height $3\frac{1}{2}$, greatest breadth 6, least br. 5 mill.

Helicina fulgora, *Gould, in Proc. Bost. Soc.* 1847, p. 201; *Exped. Shells*, p. 36, ed. 1851, p. 97, f. 106; *Pfr. Pneum. Mon.* p. 401.

Hab. Upolu and Manua, Sandwich Islands.

147. Helicina Nicobarica. B. M.

Shell lenticular, rather thin, smooth, slightly shining, whitish or horn-coloured, painted usually with one or two narrow red

bands; spire short, blunt; whorls 4, nearly flat, enlarging gradually, last sharply keeled, more convex beneath, marked sometimes with indistinct raised spiral lines; aperture somewhat oblique, obtusely triangular; columella short, with an indistinct knot; peristome sharp, expanded very narrowly; basal callus shining, surrounded with a whitish line. Operculum thin, flesh-coloured. Height $3\frac{1}{2}$, greatest breadth $5\frac{1}{2}$, least br. 5 mill.

Helicina Nicobarica, *Philippi, in Z.* f. *M.* 1847, p. 149; *Pfr. Ic.* n. 85, p. 62, t. 2, f. 19–21; *Pneum. Mon.* p. 402.

Hab. The Nicobar Islands (Th. Philippi).

§ 12. *Peristome not toothed, expanded; shell with two more or less distinct keels.*

148. Helicina Besckei.

Shell nearly semiglobose, solid, very minutely striated, nearly smooth, opaque, uniformly lemon-yellow or painted with a single blood-red band along the suture, sometimes reddish throughout; spire short, convexly-conoidal, slightly mucronated; whorls 5, rather flat, last not descending, furnished with a single sharp peripherical and several more obtuse keels; aperture oblique, rather triangular; columella shortly receding, indistinctly angulated at its lower extremity; peristome expanded, somewhat thickened, upper margin nearly rectilinear, basal margin slightly arcuate; basal callus extremely thin. Operculum semiovate, shining and reddish-chestnut-coloured on the outer, pale on the inner side. Height 10, greatest breadth 17, least br. 14 mill.

Helicina Besckei, *Pfr. in Proc. Z. S.* 1848, p. 120; *Z.* f. *M.* 1848, p. 88; *Ic.* n. 87, p. 64, t. 4, f. 1–4; *Pneum. Mon.* p. 402.
Helicina carinata, *Sow. Thes.* t. 2, f. 60 (not *D'Orbigny*).

Hab. Brazils.

149. Helicina variabilis. B. M.

Shell orbiculate-conoidal, rather solid, spirally striated, slightly shining, uniformly yellowish or painted with broad purplish or violaceous bands; spire conoidal, rather pointed; whorls $5\frac{1}{2}$, nearly flat, last furnished with two keels, one peripherical, stronger, the other more obtuse below the first; aperture entire, semiovate; columella short, dilated backwards into a white, circumscript callus; peristome white, widely expanded, with the right margin depressed. Operculum semiovate, blackish-chestnut-coloured. Height 10, greatest breadth 14, least br. 12 mill.

Helicina variabilis, *Wagner, in Spix. Test. Bras.* p. 25; *Dësh. in Lam. Hist.* viii. p. 165, n. 20; *Moricand, in Mém. Genève*, vii. p. 448; *Reeve, Conch. Syst.* t. 186, f. 1; *Pfr. Ic.* n. 86, p. 63; t. 1, f. 27–30; *Pneum. Mon.* p. 402.

Helicina zonata, *Sow. Thes.* n. 23, p. 5, t. 2, f. 62–64.

Helicina zephyrina, *Potiez & Mich. Gal. Douai*, i. p. 232, t. 23, f. 17, 18?

Helicina rosea, *Muhlf. Anton Verz.* p. 53, n. 1933.

a. Banded; Helicina fasciata, *Spix. Test. Bras.* t. 16, f. 3, 4.

β. Uniformly yellow; Helicina flava, *Spix.* t. 16, f. 5.

Hab. The province of Para, Brazils.

150. Helicina biangulata.

Shell rather turbinate-depressed, rather solid, sculptured with impressed spiral striæ, slightly shining, fulvous-reddish; spire slightly convex, with the apex acuminated; whorls 5, nearly flat, last slightly angulated on the periphery and marked with a second angle on the anterior half, moderately convex beneath and more closely striated spirally; aperture oblique, semiovate; columella short, arcuated outward, terminating in an indistinct tooth, dilated backwards into a white circumscript callus; peristome rather broad, expanded, white. Height 6, greatest breadth 11, least br. 9 mill.

Helicina biangulata, *Pfr. in Z.* f. *M.* 1850, p. 192; *Ic.* n. 100, t. 10, f. 34, 35; *Pneum. Mon.* p. 403.

Locality unknown.

151. Helicina Tilei.

Shell conic, rather solid, smooth, opaque, yellow; spire regularly conic; whorls 5, the upper ones flattened, the last convex, banded with white, rather flat beneath, furnished with two keels, the larger one being placed below the middle, the other a little below the first; aperture very oblique, semiovate; columella short, terminating in a slight knot, bordered above with an impressed, transversal line; peristome somewhat thickened, white, slightly reflexed, with the upper margin sinuate. Height 7, greatest breadth 9, least br. 8 mill.

Helicina Tilei, *Pfr. in Z.* f. *M.* 1847, p. 150; *Ic.* n. 88, p. 65, t. 2, f. 4–6; *Pneum. Mon.* p. 403.

Hab. Brazils (Dr. Tile).

152. Helicina trochlea.

Shell minute, trochiform, ash-gray above, and girdled with 3–4 sharp spiral ribs (the interstices being concave, somewhat rough), convex beneath, polished, lemon-yellow; whorls 4, last

furnished with two keels on the periphery; aperture rather triangular; peristome slightly reflexed; columella angulated at its base covered with copious callus. Height $\frac{3}{4\frac{1}{2}}$, breadth $\frac{1}{8}$ inch.

Helicina trochlea, *Gould, in Proc. Bost. Soc.* 1847, p. 202; *Exped. Shells*, p. 36, ed. 1851, p. 99, f. 109; *Pfr. Pneum. Mon.* p. 404.

Hab. The island of Matea.

V. ALCADIA.

Operculum not spiral, rather solid, semiovate, furnished at its lower extremity with a tooth-like appendage. Shell heliciform, turbinate, subglobose or slightly depressed, for the most part hairy, covered with callus round the columella, which is flattened, nearly rectilinear. Aperture semiovate, rather triangular; peristome more or less expanded, separated from the columella by a distinct, for the most part curved slit.

Alcadia, *Gray, Syn. Brit. Mus.* 1840, p. 134, ed. 1842, p. 91; *Proc. Z. S.* 1847, p. 182, n. 533; *Sow. Conch. Man.* ed. ii. p. 61; *Pfr. Pneum. Mon.* p. 404.
Helicina (part), *Swainson, Malacol.* p. 337.
Helicina, § 6, *Pfr. in Z.* f. *M.* 1848, p. 83.
Helicina sp., *Auct.*

1. Alcadia major. B. M.

Shell depressed-globose, solid, nearly smooth, marked with rows of very minute points, slightly shining, fuscous-reddish or yellow; spire short, conoidal; whorls scarcely 5, moderately convex, last rounded; aperture semiovate; columella arcuated forward at its lower extremity, separated from the peristome by a short, distinct slit; peristome thickened, expanded; basal callus thick, diffused. Operculum shelly, rather concave and pale on the outer side. Height 15, greatest breadth 22, least br. 18 mill.

Helicina major, *Gray, in Zool. Journ.* i. p. 68, t. 6, f. 10; *Désh. in Lam. Hist.* viii. p. 162, n. 14; *Sowerby, Genera of Shells*, n. 36, f. 1; *Sow. Conch. Man.* f. 306; *Reeve, Conch. Syst*, t. 186, f. 7; *Sow. Thes.* n. 13, p. 4, t. 1, f. 12, 13; *Pfr. Ic.* n. 28, p. 27, t. 6, f. 1, 2.
Alcadia major, *Gray, in Proc. Z. S.* 1847, p. 182; *Pfr. Pneum. Mon.* p. 405.

Hab. Jamaica (Adams).

2. Alcadia hirsuta.

Shell depressed-globose, rather thin, brownish-red, with an hirsute brownish epidermis, having long hairs in six spiral lines, of which one is next below the suture, and the others are on the

middle and lower parts of the last whorl, with the striæ of growth lightly impressed; apex rather obtuse, slightly mucronate; spire with the outlines much curved; whorls nearly 5, slightly planulate, with a well-impressed suture; aperture rather large, semi-elliptical; lip rather thin and sharp, but well-reflected so as to form a canal behind, with the slit not very deep, but wide. Mean divergence 110°, greatest breadth 0.59, least br. 0.48, height 0.4 inch. (*Adams.*)

Helicina hirsuta, *Adams, in Ann. Lyc. New York*, v. p. 49, et *Contrib. to Conchol.* n. 8, p. 133.
Alcadia hirsuta, *Pfr. Pneum. Mon.* p. 405.

Hab. Jamaica.

3. Alcadia consanguinea.

Shell subglobose, moderately thick, dark brownish-red, with the lip white, with a somewhat hirsute epidermis, having the projecting points spirally arranged, with the striæ of growth quite distinct; apex obtuse; spire with the outlines much curved; whorls 5, moderately convex, with a well-impressed suture; aperture semiorbicular; lip sinuous above, moderately thickened and sharp, but well reflected, except at the extremities, with the slit broad and shallow. Mean divergence 110°, greatest breadth 0.6, least br. 0.5, height 0.45 inch. (*Adams.*)

Helicina consanguinea, *Adams, in Ann. Lyc. New York*, v. p. 50; *Contr. to Conch.* n. 8, p. 134.
Alcadia consanguinea, *Pfr. Pneum. Mon.* p. 406.

Hab. Westmoreland, west part of Jamaica.

4. Alcadia microstoma.

Shell globose-conic, moderately thickened, brown, shaded off to a snowy white along the suture and on the periphery of the last whorl, with rather light striæ of growth, in which are a few spiral series of punctures; apex obtuse; spire with the outlines more or less and not uniformly curvilinear; whorls rather less than 5, moderately convex, with a well-impressed suture; last whorl subplanulate beneath; aperture semi-elliptical, compressed above and below, laterally dilated, with the lip sinuate, well expanded and reflected except at the extremities, with the slit not very deep, rather wide. Mean divergence 60°, greatest breadth 0.65, least br. 0.52, height 0.4 inch. (*Adams.*)

Helicina microstoma, *Adams, in Ann. Lyc. New York*, v. p. 51; *Contrib. to Conch.* n. 8, p. 135.
Alcadia microstoma, *Pfr. Pneum. Mon.* p. 406.

Hab. Jamaica.

5. Alcadia Gossei.

Shell depressed-globose, somewhat rugged by series of pustules, slightly shining, fuscous-reddish; spire convex; whorls $4\frac{1}{2}$, somewhat convex, last rounded; aperture semiovate, rather triangular, flesh-coloured, shining within; columella truncated at its lower extremity, dilated backwards into a thick, flesh-coloured callus; peristome somewhat thickened, expanded, with a very slight slit near the columella. Height $13\frac{1}{2}$, greatest breadth 19, least br. $15\frac{1}{2}$ mill.

Helicina Gossei, *Pfr. in Proc. Z. S.* 1848, p. 122; *Ic.* n. 29, p. 28, t. 6, f. 11, 12.
Alcadia Gossei, *Pfr. Pneum. Mon.* p. 407.

Hab. Jamaica (Gosse).

6. Alcadia palliata.

Shell globose-conoidal, solid, fuscous-reddish, covered with a closely short-haired periostraca; spire conoidal, rather pointed; whorls $5\frac{1}{2}$, scarcely convex, last deflected anteriorly; aperture diagonal, semiovate, rather triangular; columella short, terminating forwards in a curved tooth, dilated backwards into a semicircular callus, which is thick and orange-coloured on the centre; peristome somewhat thickened, expanded, flesh-coloured, separated from the columella by a deep, narrow, rather rectilinear slit. Operculum solid, opaline. Height $11\frac{1}{2}$, greatest breadth $15\frac{1}{2}$, least br. 13 mill.

Helicina palliata, *Adams, Contrib. to Conchol.* n. i. p. 13.
Alcadia palliata, *Pfr. Pneum. Mon.* p. 407.

β. Labiosa (*Adams, Contrib.* n. 8, p. 134); with the peristome excessively thickened both externally and internally, contracting the aperture.

Hab. Jamaica.

7. Alcadia Brownii. B. M.

Shell depressed-conoidal, rather thin, faintly striated, slightly shining, diaphanous, fuscous or yellow, spire broadly conoidal, rather pointed; whorls about 5, scarcely convex, last a little descending anteriorly, rather flattened beneath; aperture oblique, semiovate, rather triangular; columella short, terminating forwards in a curved tooth, dilated backwards into a semicircular callus, which is thick and white on the centre; peristome white, somewhat thickened, expanded, separated from the columella by a deep, rather broad, curved slit. Operculum rather horny. Height 9, greatest breadth 13, least br. $11\frac{2}{3}$ mill.

Helicina Brownii, *Gray, in Zool. Journ.* i. p. 69, t. 6, f. 13; *Dësh. in Lam. Hist.* viii. p. 163, n. 17; *Sow. Thes.* n. 14, p. 4, t. 1, f. 7, 8; *Pfr. Ic.* n. 30, p. 28, t. 3, f. 18, t. 6, f. 21, 22.
Helix Brownii, *Wood, Ind. Suppl.* t. 8, f. 63.
Alcadia Brownei, *Pfr. Pneum. Mon.* p. 408.
Cochlea, n. 11, *Browne, Jamaic.* t. 40, f. 1.

Hab. Jamaica.

8. Alcadia citrinolabris.

Shell depressed-globose, solid, faintly striated, red, covered with a minutely-hairy periostraca; spire broadly conoidal, rather pointed; whorls 5, slightly convex, last scarcely descending, moderately convex beneath; aperture very oblique, semiovate; columella short, terminating in a small, blunt, outward, prominent tooth, dilated backwards into a broad semicircular callus; peristome thickened, reflexed, yellow, with the upper margin sinuate, basal margin separated from the columella by a short slit. Height 10½, greatest breadth 16, least br. 13 mill.

Helicina citrinolabris, *Adams, Contrib.* to *Conch.* n. 1, p. 14.
Alcadia citrinolabris, *Pfr. Pneum. Mon.* p. 408.

β. Smaller; with the spire less depressed, and a white peristome.

Helicina albolabris, *Adams, Contrib. to Conch.* n. 1, p. 13.

Hab. Jamaica.

9. Alcadia Hollandi.

Shell globose-conoidal, rather thin, dark chestnut-coloured, indistinctly decussated, covered with small pustules under a lens; spire broadly conoidal, rather pointed; whorls 5, slightly convex, increasing rapidly, the last somewhat descending anteriorly; aperture diagonal, semiovate, rather triangular; columella short, terminating forwards in a curved tooth, dilated backwards into a shining, semicircular callus; peristome simple, sharp, expanded, separated from the columella by a short slit. Operculum solid, ovate, grayish. Height 8½, greatest breadth 12, least br. 10 mill.

Helicina Hollandi, *Adams, Contrib. to Conchol.* n. 1, p. 13; *Pfr. Ic.* t. 10, f. 18–20.
Alcadia Hollandi, *Pfr. Pneum. Mon.* p. 409.

Hab. Jamaica.

10. Alcadia succinea.

Shell orbiculate-conoidal, thin, granulated under a lens, pellucid, shining, reddish-amber-coloured, furnished with several series of black hairs, which are obsolete except on the last whorl;

spire shortly conoidal, rather pointed; whorls nearly 5, somewhat convex, last large, imperceptibly descending; aperture slightly oblique, semiovate; columella extremely short, perpendicular, terminating in a sharp, small tooth, dilated backwards into a thin, granulated callus; peristome thin, narrowly expanded, upper margin sinuate, basal margin indented near the columella. Operculum shelly, solid, reddish. Height $5\frac{1}{3}$, greatest breadth 8, least br. $6\frac{1}{2}$ mill.

Helicina succinea, *Pfr. in Z.* f. *M.* 1850, p. 76; *Ic.* n. 97, t. 10, f. 15–17.
Alcadia succinea, *Pfr. Pneum. Mon.* p. 409.

Hab. Haiti (Sallé).

11. Alcadia solitaria.

Shell depressed, rather thin, very minutely granulated under a lens, diaphanous, pale yellow or whitish, with a single fulvous band along the suture; spire short, convex; whorls $4–4\frac{1}{2}$, scarcely convex, last somewhat depressed, a little more convex beneath; aperture oblique, semiovate, rather triangular; columella short, concave, terminating forwards in a small tooth, dilated backwards into a thin, semicircular, yellowish callus; peristome thin, narrowly reflexed, upper margin sinuate, basal margin separated from the columella by a slight slit. Height $4\frac{1}{2}–5$, greatest breadth 8–9, least br. $6\frac{1}{2}–7\frac{1}{2}$ mill.

Helicina solitaria, *Adams, in Proc. Bost. Soc.* 1845, p. 12.
Helicina Guildingiana, *Pfr. in Z.* f. *M.* 1848, p. 87; *Ic.* n. 31, p. 29, t. 4, f. 37–39.
Alcadia solitaria, *Pfr. Pneum. Mon.* p. 410.

Hab. Jamaica.

12. Alcadia dubiosa.

Shell depressed, rather thin, very minutely striated, shining, reddish; spire very little conoidally elevated; whorls 4, scarcely convex, last rather flattened beneath; aperture oblique, semiovate; columella somewhat flattened, triangular, shortly receding, dilated backwards into a rather thick callus; peristome slightly thickened, white, somewhat expanded. Height 5, greatest breadth 8, least br. 7 mill.

Helicina dubiosa, *Adams, Contrib. to Conch.* n. 6, p. 93.
Alcadia dubiosa, *Pfr. Pneum. Mon.* p. 410.

β. Intermedia, *Adams*, l. c. p. 94; with the spire less raised and a distinct slit near the columella.

Hab. Jamaica.

13. Alcadia megastoma.

Shell depressed-globose, smooth, covered with bands of a hairy periostraca, shining, fuscous; spire depressed-conoidal; whorls $4\frac{1}{2}$, convex, last large, convex beneath; aperture rather oblique, semicircular; columella shortly receding, terminating in a very small knot, dilated backwards into a thin callus; peristome slightly thickened, narrowly expanded, separated from the columella by a small slit. Operculum rather solid, pale. Height 5, greatest breadth 8, least br. $6\frac{1}{2}$ mill.

Helicina megastoma, *Adams, Contrib. to Conch.* n. 1, p. 14.
Alcadia megastoma, *Pfr. Pneum. Mon.* p. 411.

β. Thinner, pellucid, with the periostraca more distinct.

Helicina affinis, *Adams, in Proc. Bost. Soc.* ii. 1846, p. 102.

Hab. Jamaica.

14. Alcadia macilenta.

Shell depressed, nearly discoidal, thin, very minutely punctured and striated, pale fuscous; spire slightly raised, scarcely acuminated; whorls $4\frac{1}{2}$, scarcely convex, last broader, rather flat beneath; aperture diagonal, nearly semicircular; columella short, terminating in a small tooth, which is curved forwards and thickened externally; peristome simple, narrowly expanded, separated from the columella by a narrow, deep, curved slit; basal callus thin. Height $3\frac{3}{4}$, greatest breadth $7\frac{1}{3}$, least br. 6 mill.

Helicina macilenta, *Adams, Contrib. to Conch.* n. 1, p. 13.
Alcadia macilenta, *Pfr. Pneum. Mon.* p. 411.

Hab. Jamaica.

15. Alcadia hispida. B. M.

Shell globose-depressed, thin, reddish-brown, densely covered with short hairs; spire scarcely raised, slightly acuminated; whorls $4\frac{1}{2}$, moderately convex, increasing gradually, last moderately convex beneath; aperture somewhat oblique, semiovate; columella extremely short, terminating in a recurved, free tooth; peristome rather simple, scarcely expanded, white internally, upper margin sinuate, basal margin separated from the columella by a sharp slit; basal callus very thin. Operculum rather membranaceous, horn-coloured. Height 4, greatest breadth 6, least br. $5\frac{1}{4}$ mill.

Helicina hispida, *Pfr. in Wiegm. Arch. f. Nat.* 1839, i. p. 355; *Sow. Thes.* n. 16, p. 4, t. 3, f. 112, 113; *Pfr. Ic.* n. 32, p. 30, t. 3, f. 19–23.
Helicina dentigera, *Orbigny, Moll. Cub.* i. p. 252, t. 21, f. 4–6; *Sow. Thes.* n. 15, p. 4, t. 3, f. 107, 108.
Alcadia hispida, *Pfr. Pneum. Mon.* p. 412.

Hab. Cuba. Very frequent near Matanzas.

16. Alcadia minima.

Shell depressed, faintly striated, covered with very short deciduous hairs, fuscous-reddish; spire short, conoidal; whorls $4\frac{1}{2}$, scarcely convex, enlarging gradually, last somewhat depressed, rather flat beneath; aperture oblique, semiovate; columella short, nearly perpendicular, terminating in a short, blunt tooth; peristome simple, scarcely expanded; basal margin nearly rectilinear, separated from the tooth of the columella by a minute slit; basal callus extremely thin. Operculum rather membranaceous, horn-coloured. Height $3\frac{1}{3}$, greatest breadth $4\frac{3}{4}$, least br. 4 mill.

Helicina minima, *Orbigny, Moll. Cub.* i. p. 253, t. 21, f. 7–9; *Sow. Thes.* n. 17, p. 5, t. 3, f. 119; *Pfr. Ic.* n. 33, p. 30, t. 3, f. 23–25.
Alcadia minima, *Pfr. Pneum. Mon.* p. 412.

Hab. Cuba.

17. Alcadia pusilla.

Shell depressed-globular, brownish horn-colour, with excessively fine striæ of growth; apex subacute; spire moderately elevated, with the outlines curvilinear; whorls more than 4, a little convex, with a distinct suture; aperture rather large, well rounded in the right side, somewhat sinuate in the left side; labrum thin, moderately dilated, well reflected, with a deep curved incision, similar to that of H. palliata, and next below the columella, the end of which is sickle-shaped. This species is much less discoidal than H. macilenta. Mean divergence about 120°; height 0.16, greatest breadth 0.25, least br. 0.2 inch. (*Adams.*)

Helicina pusilla, *Adams, Contrib. to Conch.* n. 7, p. 101.
Alcadia pusilla, *Pfr. Pneum. Mon.* p. 413.

Hab. Jamaica.

Sect. II. OPISOPHTHALMA.

Eyes on the upper part of the head, behind the base of the tentacula. Head with a rather produced aculeated proboscis, truncated at the end. Tentacula subulate.

Suborder 1, Ophisophthalma, *Pfr. Pneum. Monogr.* p. 3.

Fam. III. ACICULIDÆ.

Character of the suborder.—Operculum thin, spiral, with few whorls; foot divided across.

Aciculidæ, *Gray, Catal. Cycloph.* p. 67; *Fig. Mollusca*, iv. 121, 1850.

Aciculacea, *Pfr. Pneum. Mon.* p. 3.

Mr. Gray, who first noticed this family (*Fig. Mollusca*, iv. 121), refers to it two genera, *Acicula* and *Geomelania;* the former was referred to the genus Carychium, or at least to the same family, before the presence of an operculum had been observed. The genus *Truncatella*, *Risso*, which is very similar in the structure of shell, and even in the amphibious habits of its animal, seems to belong rather to the ctenobranchiate mollusca.

This family is allied to *Truncatella* and *Auricula*, *Gray*, *l. c.* 121.

I. ACICULA.

Operculum very thin, glassy, few-whorled. Shell subimperforate, rather cylindrical. Peristome rather thickened, with subparallel margins joined by a thin callus.

Acicula, *Hartmann*, 1821, *in Steinmüll. Neue Alpina*, i. p. 205, 215; *Pfr.* 1841, *in Arch. f. Naturg.* i. p. 225; *Chemn. ed. sec.* i. 19, p. 7, 209; *Z.* f. *M.* 1847, p. 111; *Gray, Catal. Cycloph.* 1850, p. 67; *Pfr. Pneum. Mon.* p. 3.

Acme, *Hartmann*, 1821, *in Sturm, Fauna*, vi. h. 5, p. 37; *Fitzinger*, 1833, *Syst. Verz.* p. 110; *Beck*, 1837, *Ind.* p. 101; *Gray*, 1840, *in Turt. Man.* 2nd ed. p. 222; 1842, *Syn. Brit. Mus.* p. 91; *Thompson*, 1840, *Moll. of Irel.* p. 29.

Acmea, *Hartmann*, 1821, *in Neue Alpina*, i. p. 204, 212; *Gray*, 1847, *in Proc. Zool. Soc.* p. 180, n. 502.

Pupula, *Agassiz*, 1837, *in Charpent. Catal.* p. 22; *Hartm.* 1840, *Erd-u-Süssw. Gast.* i. p. 1; *Herrmannsen*, 1847, *Ind. Gen. Malacoz.* ii. p. 364.

Turbo, Auricula, Carychium, Bulimus, Cyclostoma, Auricella, spec., *Auct.*

1. Acicula fusca. B. M.

Shell subimperforate, cylindrical, sculptured with distant impressed longitudinal lines, shining, horn-coloured-brownish; spire lessened towards the blunt apex; whorls $6\frac{1}{2}$–7, rather flat; aperture semioval, angulated above; peristome with a rather thickened external edge. Length 3, breadth 1 mill.

Turbo fuscus, *Walker, Test. Min. Rar.* p. 12, t. 2, f. 42; *Wood, Suppl.* t. 6, f. 15.
Bulimus, lineatus, *Drap. Tabl. Moll.* p. 67, n. 6; *Turt. Man.* p. 82, f. 66.
Bulimus subdiaphanus, *Bivona* (*Villa*).
Auricula lineata, *Drap. Hist.* p. 57, t. 3, f. 20, 21.
Helix cochlea, *Studer, in Coxe's Travels.*
Auricella lineata, *Jurine, in Helv. Alm.* 1817.
Carichium acicularis, *Féruss. Essai*, p. 53, 124.
Carychium lineatum, *Féruss. Prodr.* p. 100, n. 1; *Mich. Complém.* p. 74.
Carychium cochlea, *Studer, Verzeichn.* p. 21.
Carychium fuscum, *Fleming, Brit. Anim.* p. 270.
Acicula lineata, *Hartm. in Neue Alpina*, i. p. 215.
Acicula fusca, *Pfr. in Z.* f. *M.* 1847, p. 111; *Ic. Cyclost.* p. 211, t. 30, f. 23–25; *Stein. Berl.* p. 83; *Gray, Catal. Cycloph.* p. 68; *Pfr. Pneum. Mon.* p. 4.
Acme lineata, *Hartm. in Sturm, Fauna*, vi. h. 6, t. 2; *Fitzing. Syst. Verz.* p. 110.
Acme fusca, *Beck, Ind.* p. 101; *Gray, in Turt. Man.* p. 223, t. 6, f. 66; *Thompson, Moll. of Irel.* p. 29.
Cyclostoma lineatum, *Porro ?*
Pupula lineata, *Agass. in Charp. Catal.* p. 22, n. 116; *Villa, Disp. Syst.* p. 29.
Pupula acicularis lineata, *Hartm. Erd-u-Süssw. Gast.* i. p. 1, t. 1.
Truncatella lineata, *Held, Wassermoll. Bayerns*, p. 22.

Hab. Germany, Switzerland, Great Britain, France, Italy.

2. Acicula polita.

Shell subimperforate, cylindrical with the apex blunt, quite smooth and very shining, pellucid, brownish-horn-coloured; whorls $5\frac{1}{2}$–6, moderately convex; suture deep; aperture perpendicular, truncately oval; peristome thickened externally. Length $2\frac{1}{2}$, breadth not quite 1 mill.

Carychium lineatum, *C. Pfr. Naturg.* iii. p. 43, t. 7, f. 26, 27 (not *Féruss.*); *Rossm. Icon.* vi. p. 54, t. 28, f. 408.
Pupula acicularis polita, *Hartm. Erd-u-Süssw. Gast.* i. p. 5, t. 2.
Pupula lineata var., *Villa, Disp. Syst.* p. 29.
Acicula polita, *Pfr. in Wiegm. Arch.* 1841, i. p. 226; *Ic.* p. 212, t. 30, f. 26–28; *Pneum. Mon.* p. 5.

Acicula fusca, β, *Pfr. in Z.* f. *M.* 1847, p. 111.
Truncatella lubrica, *Held, Wassermoll. Bayerns*, p. 22.

β. Larger; length 2⅓, breadth ¾‴.

Pupula lineata, var. Banatica, *Rossm. Icon.* xi. p. 12, t. 53, f. 736.

γ. Smaller, more slender, pale brownish.

Hab. Dispersed in Germany and France; var. β in Hungary; var. γ in the Littoral province of Austria.

3. Acicula Simoniana.

Shell very minute, subperforate, cylindrical, rather turreted, smooth, shining, horn-coloured-whitish; spire elongate, with the apex rather blunt; whorls 7, convex, the last one equalling scarcely a quarter of the whole length; aperture perpendicular, truncately oval; peristome slightly thickened, with the margins joined by callus, right margin rather sinuate, columellar margin rather reflected. Length not quite 2, breadth ½ mill.

Pupula Simoniana, *Charpentier, MSS.*
Acicula Simoniana, *Pfr. in Z.* f. *M.* 1850, p. 63; *Pneum. Mon.* p. 6.

Hab. France.

4. Acicula spectabilis.

Shell cylindrical, rather turreted, with the apex blunt, rather solid, shining, horn-coloured, closely and slightly ribbed; whorls 7, moderately convex, the last one forming about two-sevenths of the whole length; aperture nearly perpendicular, obliquely semi-oval; peristome thickened externally, with the margins distant, joined by a thin callus, columellar margin short, right margin arcuately dilated. Length 5⅔, breadth 1½ mill.

Carychium spectabile, *Rossm. Icon.* x. p. 36, t. 49, f. 659.
Acicula spectabilis, *Pfr. in Wiegm. Arch.* 1841, i. p. 226; *Z.* f. *M.* 1847, p. 111; *Ic. Cycl.* p. 210, t. 30, f. 29–31; *Gray, Cat. Cycl.* p. 68, n. 2; *Pfr. Pneum. Mon.* p. 6.
Pupula spectabilis, *Rossm. Icon.* xi. p. 12; *F. Schmidt, Krain. Moll.* p. 15.
Truncatella spectabilis, *Held, Wassermoll. Bayerns*, p. 22.

Hab. Illyria, and the Littoral province of Austria.

5. Acicula striata.

Shell elongate, turreted, cylindrical, truncate, fulvous, strongly furrowed longitudinally; whorls 6–7, rather oblique; aperture nearly oval; peristome thick, not reflected; operculum oval, few-whorled, thin, pale. Length 3‴. (*Quoy.*)

Cyclostoma striata, *Quoy & Gaim. Voy. Astrol. Zool.* ii. p. 186, t. 12, f. 27–30.
Truncatella Quoyi, *Pfr. in Z.* f. *M.* 1846, p. 187.
Acicula striata, *Gray, Catal. Cycloph.* p. 68, n. 3; *Pfr. Pneum. Mon.* p. 6.

Hab. The island of Vanikoro.

II. GEOMELANIA, *Pfr.*

Animal like Acicula (*A. Adams, in Proc. Z. S.* 1849, p. 169). Operculum membranaceous, pellucid, ovate of a few rapidly-enlarging whorls. Shell imperforate, turreted; aperture entire, effused; peristome simple, expanded; the margins joined, the basal produced into a more or less developed tongue-shaped appendix.

Geomelania, *Pfr. in Proc. Zool. Soc.* 1845, p. 45; *Z.* f. *M.* 1847, p. 111, 1849, p. 115; *Ic. Cyclost.* p. 213; *Adams, Contr. to Conch.* p. 17; *Gray, Catal. Cycl.* p. 68; *Pfr. Mon.* p. 7.

§ 1.

1. Geomelania fortis.

Shell elongate-conic, whitish, with, on each whorl, about thirty-six rather slender transverse arcuated ribs; spire with rectilinear outlines; apex truncate, with the loss of about 8 whorls; whorls remaining 7, moderately convex, with a well-impressed suture; aperture ovate, widely and deeply effuse; labrum well expanded and reflected, with the linguiform part at the anterior extremity, excessively produced obliquely and downwards, rather narrow, acute; labium well thickened, slightly separated from the penultimate whorl. Length 0.6, greatest breadth 0.18, least br. 0.15 inch. (*Adams.*)

Geomelania fortis, *Adams, Contrib. to Conch.* n. 6, p. 94; *Pfr. Pneum. Mon.* p. 8.

Hab. Jamaica.

2. Geomelania Jamaicensis. B. M.

Shell turreted, truncate, rather solid, scarcely shining, white, sculptured with rather crowded arcuate ribs; whorls remaining 6–7, moderately convex, the last one rather angulated beneath, forming nearly one-sixth of the whole length; aperture nearly perpendicular, ovate; peristome continuous, with the margins joined above into an angle; right and basal margin thickened internally and somewhat reflected; columellar margin appressed; tongue-shaped appendix somewhat twisted, sharp, produced. Length 12–14, breadth 3½ mill.

Geomelania Jamaicensis, *Pfr. in Proc. Zool. Soc.* 1845, p. 45; *Ic. Cyclost.* p. 214, t. 30, f. 19, 20; *Adams, Contrib. to Conch.* p. 18; *Gray, Cat. Cycl.* p. 68; *Petit, in Journ. Conch.* 1851, t. 2, f. 4; *Pfr. Mon.* p. 7.

Hab. Jamaica.

3. Geomelania magna.

Shell elongate-conic, whitish, with, on each whorl, about thirty-eight rather slender transverse much arcuated ribs; spire with rectilinear outlines; apex truncate, with the loss of 8 whorls; whorls remaining $6\frac{1}{2}$, moderately convex, with a well-impressed suture; aperture ovate, widely and deeply effuse; labrum well expanded and reflected, with the linguiform part at the anterior end wide, obtuse, well produced obliquely and laterally; labium well thickened, slightly separated from the penultimate whorl. Length 0.65, greatest breadth 0.19, least br. 0.15 inch. (*Adams.*)

Geomelania magna, *Adams, Contrib. to Conch.* n. 6, p. 94; *Pfr. Mon.* p. 8.

Hab. Jamaica.

4. Geomelania procera.

Shell slender, conic-cylindrical, whitish, with, on each whorl, about thirty stout prominent acute-edged transverse ribs, which are continued nearly to the anterior margin of the aperture; with very numerous microscopic lightly-impressed spiral striæ in the intercostal spaces; spire with rectilinear outlines; apex truncate, with the loss of 7 or 8 whorls; whorls remaining $7–7\frac{1}{2}$, moderately convex, with a well-impressed suture; aperture ovate, widely and deeply effuse; labrum well expanded, reflected and thickened, with the linguiform part at the anterior extremity well produced obliquely and downwards, rather narrow, but not acute; labium well thickened, separated slightly from the penultimate whorl. Length 0.63, greatest breadth 0.15, least br. 0.13 inch. (*Adams.*)

Geomelania procera, *Adams, Contrib. to Conch.* n. 6, p. 95; *Pfr. Mon.* p. 9.

Hab. Jamaica.

5. Geomelania gracilis.

Shell similar to that of G. procera; but the ribs are much more slender and numerous (about forty on each whorl), and are more or less inequidistant; only very slight traces of spiral striæ can be detected under a magnifier; the apex is truncate, with the loss of 8 whorls; the linguiform part of the lip is subacute, and is much produced obliquely and laterally at the

lower extremity of the right side; the labium is as thick as the labrum. Length 0.55, greatest breadth 0.13, least br. 0.11 inch. (*Adams.*)

Geomelania gracilis, *Adams, Contrib. to Conch.* n. 6, p. 95; *Pfr. Mon.* p. 9.

β. Var. parva, with about 36 ribs; length 0.35 inch.

Hab. Jamaica.

6. Geomelania typica.

Shell slender, conic, whitish, with, on each whorl, about twenty-six to thirty prominent acute-edged transverse ribs, which become obsolete only near the anterior extremity; with very numerous microscopic lightly-impressed spiral striæ, which do not traverse the summits of the ribs; spire with rectilinear outlines; apex truncate, with the loss of 7 or 8 whorls; whorls remaining about 7, moderately convex, with a well-impressed suture; aperture ovate, widely and deeply effuse; labrum well expanded, moderately thickened, with the linguiform part at the anterior extremity of the right side, excessively produced obliquely, very narrow and subacute; labium well thickened, a little reflected, and separated from the penultimate whorl except at the upper extremity. Length 0.47, greatest breadth 0.125, least br. 0.11 inch. (*Adams.*)

Geomelania typica, *Adams, Contrib. to Conch.* n. 6, p. 95; *Pfr. Mon.* p. 9.

Hab. Jamaica.

7. Geomelania expansa.

Shell much elongate, conic, whitish, rather densely sculptured with strong transverse somewhat arcuate ribs, which are flattened on the forward side, are less regular than in G. minor, and are obsolete on the anterior half of the last whorl; spire with rectilinear outlines; apex truncate; nearly 7 whorls remaining, moderately convex, with a well-impressed suture; aperture ovate, much expanded laterally, widely and rather deeply effuse anteriorly; labrum but little thickened, slightly reflected above, more reflected and widely spread below; labium rather thin, a little reflected into the concavity of the central region of the penultimate whorl, to which it is appressed. Length 0.53, greatest breadth 0.185, least br. 0.15 inch. (*Adams.*)

Geomelania expansa, *Adams, Contrib. to Conch.* n. 2, p. 18; *Pfr. Mon.* p. 10.

Hab. Jamaica.

8. GEOMELANIA AFFINIS.

Shell similar to that of G. expansa, but the aperture is very deeply effuse anteriorly, and the linguiform part of the lip is excessively produced obliquely and is narrow; the apex is truncate, with the loss of about 7 whorls. Dimensions nearly as in G. expansa. (*Adams.*)

Geomelania affinis, *Adams, Contrib. to Conch.* n. 6, p. 96; *Pfr. Mon.* p. 10.

Hab. Jamaica.

9. GEOMELANIA MEDIA.

Shell nearly cylindrical, whitish, with, on each whorl, about thirty-five much arcuated prominent acute-edged rather slender transverse ribs; spire with rectilinear outlines; apex truncate; whorls remaining 6, moderately convex, with a well-impressed suture; aperture ovate, widely effuse; labrum moderately expanded and thickened, with the linguiform part at the anterior extremity of the right side well produced obliquely, not very narrow, subacute; labium well thickened, separated slightly from the penultimate whorl except at the upper extremity. Length 0.4, greatest breadth 0.107, least br. 0.1 inch. (*Adams.*)

Geomelania media, *Adams, Contrib. to Conch.* n. 6, p. 96; *Pfr. Mon.* p. 10.

Hab. Jamaica.

10. GEOMELANIA VICINA.

Shell similar to that of G. minor, with a greater divergence; it is usually thinner; the linguiform part of the lip is excessively produced laterally, and is very wide; the periphery of the last whorl is more angular than in G. minor. (*Adams.*)

Geomelania vicina, *Adams, Contrib. to Conch.* n. 6, p. 96; *Pfr. Mon.* p. 11.

Hab. Jamaica.

§ 2.

11. GEOMELANIA MINOR.

Shell turreted, truncate, rather thin, glassy-whitish, sculptured with crowded and arcuated rib-like striæ; whorls remaining 7, the last one forming a little more than a quarter of the whole length; aperture ovate, rather triangular; peristome thin, scarcely expanded, with the margins joined by callus, right and basal margin sinuate; linguiform part blunt. Length $10\frac{1}{2}$, breadth 3 mill. Aperture not quite 3 mill. in length, 2 in breadth at the base.

Geomelania minor, *Adams, Contrib. to Conch.* n. 2, p. 18; *Pfr. Ic. Cyclost.* p. 214, t. 30, f. 21, 22; *Pneum. Mon.* p. 8.

Hab. Jamaica.

12. Geomelania Hilliana.

Shell conic-cylindric, white, with, on each whorl, about thirty-three to thirty-five small obtuse ribs, which are obsolete anteriorly and behind the labrum; spire with rectilinear outlines; apex truncate; whorls remaining 6, very convex, with a deep suture; aperture suborbicular, moderately effuse; labrum well expanded and reflected, thin, linguiform part moderately produced obliquely on the side, obtuse; labium well thickened and regularly reflected, slightly disjunct from the penultimate whorl. Length 0.25, greatest breadth 0.085, least br. 0.07 inch. (*Adams.*)

Geomelania Hilliana, *Adams, Contrib. to Conch.* n. 9, p. 159; *Pfr. Mon.* p. 11.

Hab. Jamaica.

13. Geomelania exilis.

Shell much elongated, conic-cylindrical, whitish, with, on each whorl, about thirty-five transverse, very slender, straight ribs, and numerous fine spiral striæ which do not impress the summits of the ribs; spire with rectilinear outlines; apex truncate; whorls remaining 7, quite convex, with a deep suture; aperture broadly ovate, widely and slightly effuse; labrum slightly expanded and reflected, with the linguiform part occupying the lower half, and scarcely produced; labium as much thickened and reflected as the labrum, rather widely separated throughout from the penultimate whorl. Length 0.27, greatest breadth 0.064, least br. 0.056 inch. (*Adams.*)

Geomelania exilis, *Adams, Contrib. to Conch.* n. 6, p. 97; *Pfr. Mon.* p. 11.

Hab. Jamaica.

§ 3.

14. Geomelania pauperata.

Shell elongate-conic, whitish, with, on each whorl, about twenty-five rather wide obtuse transverse ribs; spire with rectilinear outlines; apex truncate; whorls remaining 7–8, quite convex, with a well-impressed suture; aperture ovate, slightly effuse; linguiform part of the labrum but slightly produced. This species resembles G. pygmæa and G. Beardsleana. Length 0.21, breadth 0.05 inch. (*Adams.*)

Geomelania pauperata, *Adams, Contrib. to Conch.* n. 6, p. 97; *Pfr. Mon.* p. 12.

Hab. Jamaica.

15. Geomelania Beardsleana.

Shell quite regularly conic, but much elongated, whitish, with closely set small obtuse ribs which are not oblique, not carinated anteriorly; spire with rectilinear outlines; apex truncate, with the loss of 6 whorls; 8 whorls remaining, quite convex, with a deep suture; last whorl a little detached, angular above; lip sharp, reflected opposite to the penultimate whorl, otherwise scarcely reflected. Length 0.3, breadth 0.07 inch. (*Adams.*)

Cylindrella Beardsleana, *Adams, Contrib. to Conch.* n. 2, p. 19.
Geomelania Beardsleana, *Adams, Contrib. to Conch.* n. 6, p. 89; *Pfr. Mon.* p. 12.

Hab. Jamaica.

16. Geomelania pygmæa.

Shell minute, turreted, subtruncate, diaphanous, whitish, sculptured with crowded rather straight rib-like striæ; whorls remaining 7, convex, enlarging regularly and slowly; aperture scarcely oblique, ovate, slightly effuse; peristome shortly expanded, with the margins joined by a somewhat detached callus, right margin slightly dilated, linguiform part obsolete. Length $4\frac{1}{2}$, breadth scarcely 1 mill.

Cylindrella? pygmæa, *Adams, in Proc. Bost. Soc.* 1845, p. 14; *Pfr. Monogr. Helic.* ii. p. 386, n. 49.
Geomelania pygmæa, *Adams, Contrib. to Conch.* n. 6, p. 89; *Pfr. Mon. Pneum.* p. 12.

Hab. Jamaica.

§ 4.

17. Geomelania conica.

Shell elongate-conic, whitish, with, on each whorl, thirty to thirty-five transverse slender moderately-arcuated ribs; spire with rectilinear outlines; apex truncate, with the loss of 5 whorls; whorls remaining 7, moderately convex, with a well-impressed suture; aperture ovate, rather widely effuse; labrum a little expanded and reflected, with the linguiform part excessively produced obliquely, and acute at the lower part of the right side. Length 0.39, greatest breadth 0.09, least br. 0.08 inch. (*Adams.*)

Geomelania conica, *Adams, Contrib. to Conch.* n. 6, p. 97; *Pfr. Mon.* p. 12.

Hab. Jamaica.

18. Geomelania pyramidata.

Shell elongate-conic, whitish, with, on each whorl, about twenty-eight small obtuse ribs, which, on the last whorl, terminate a little below the periphery; spire with rectilinear outlines; apex usually truncate, with the loss of two or three whorls; whorls remaining 7 or 8, quite convex, with a deep suture; aperture widely ovate, moderately effuse; labrum rather thin, slightly reflected, linguiform part obtuse, moderately produced laterally at the lower part of the right side; labium a little thickened and reflected. Length 0.32, greatest breadth 0.11, least br. 0.09 inch. (*Adams.*)

Geomelania pyramidata, *Adams, Contrib. to Conch.* n. 9, p. 159; *Pfr. Mon.* p. 13.

Hab. Jamaica.

§ 5.

19. Geomelania costulosa.

Shell conic-cylindrical, whitish, with, on each whorl, about forty very slender somewhat arcuated transverse ribs, which are continued to the margin of the aperture, and which are much widened at their bases; with a few inequidistant lightly impressed very fine spiral striæ, which traverse the ribs or are obsolete at their edges; spire with rectilinear outlines; apex truncate; whorls remaining about $6\frac{1}{2}$, quite convex, with a deep suture; aperture ovate, widely effuse; labrum moderately reflected and thickened, with the linguiform part very obtuse and produced laterally in the lower half of the right side; labiumwell thickened, very widely detached from the penultimate whorl, and united to the labrum above at some distance from the extremity of the latter. Length 0.37, greatest breadth 0.115, least br. 0.1 inch. (*Adams.*)

Geomelania costulosa, *Adams, Contrib. to Conch.* n. 6, p. 96; *Pfr. Mon.* p. 13.

Hab. Jamaica.

20. Geomelania striosa.

Shell conic-cylindrical, whitish, with, on each whorl, about sixteen very slender somewhat arcuate ribs, and twenty-five to thirty fine spiral striæ, which traverse the ribs, but are sometimes obsolete on their summits; spire with rectilinear outlines; apex truncate; whorls remaining about 7, moderately convex, with a deep suture; aperture ovate, widely and deeply effuse; labrum well expanded, reflected, and thickened, with the linguiform part moderately produced obtusely and ob-

liquely at the lower part of the right side; labium well thickened, slightly separated from the penultimate whorl except at the upper extremity. Length 0.38, greatest breadth 0.085, least br. 0.08 inch. (*Ad.*)

Geomelania striosa, *Adams, Contrib. to Conch.* n. 6, p. 96; *Pfr. Mon.* p. 13.

Hab. Jamaica.

21. Geomelania elegans.

Shell cylindrical, whitish, elegantly sculptured with distant, prominent, very slender ribs, which are not impressed by the very numerous microscopic spiral striæ, of which about twenty are visible on the whorls of the spire; spire with nearly rectilinear outlines; apex truncate; 7 whorls remaining, quite convex, with a very deep suture; aperture ovate, moderately effuse; labrum moderately thickened and reflected, and but little produced at the lower part; labium prominent, rather thick, slightly detached from the penultimate whorl except at the very small sinus above which it unites with the labrum. Length 0.3, greatest breadth 0.08, least br. 0.07 inch. (*Ad.*)

Geomelania elegans, *Adams, Contrib. to Conch.* n. 2, p. 18; *Pfr. Mon.* p. 14.

Hab. Jamaica.

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